# The Builder.

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Competition Design for Christ's Hospital Schools.—By Mr. T. G. Jackson ..... *Extra Large Ink-Photo*
Design for Heading to Programmes of the "Musical Guild."—By Mr. Henry Holiday ..... *Double-Page Ink-Photo.*
Church of St. Etheldreda, Fulham.—Mr. A. H. Skipworth, Architect ..... *Two Single-Page Ink-Photo's*

*Blocks in Text.*

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## *French Art of the Year.*

IT may be a question whether, when the Palais de l'Industrie comes to be demolished, it would not be a good piece of policy, in the best interests of French art, to replace it by a building of more limited wall space. There would then be neither the temptation nor the opportunity to collect together such an enormous crowd of paintings, many of which are little credit to the French school, and which jostle each other so that both the eye and the judgment get almost confused in the endeavour to select the wheat from the chaff. With the immense size of some of the paintings one need not quarrel; they would be useless in England, no doubt; but in a country where the Government spends money freely on the pictorial decoration of public buildings there is place for paintings in a decorative manner and on a great scale; one can only wish that it were so in England. It is rather with the quantity and heterogeneous character of the minor works that one is tempted to find fault. No one can pretend to look at them all, if they were all worth looking at; which is unfortunately far from being the case. And one consequence of this is a constant and obvious endeavour, among all but a few really great painters, after sensational subjects and treatment, such as shall compel attention. This is said to be the effect of painting for our own show at Burlington House; yet the Academy is quite a small and select exhibition in comparison with the area of wall to be filled at the Salon.

The result seems to be declaring itself in a slow but sure decline in the standard of French painting as represented at the two great exhibitions. It is true that both at the old and the new Salon there is less of mere eccentricity than usual; at the new Salon especially we meet with nothing like the rank absurdities which were to be seen on its walls in some preceding years. But in both exhibitions, and in the old Salon especially, there are a good many pictures which can only be called vulgar in an artistic sense, and not a few which are vulgar in another and wider sense of the word.

Among the very large works which may be regarded as decorative paintings, and some of which are truly decorative in style (while others are very much the reverse), there is not as much to interest one as usual. M. Bonnat's large painting of last year, of which we gave an illustration,* though it was rightly criticised as being somewhat sensational in manner and composition, was at least a far more effective work, as a decoration for a building, than anything to be seen in the large room of the old Salon this year. The best in a pictorial sense is M. Gervais' "Maria de Padilla," which has been purchased by the State, and is unquestionably a very fine work in colour and composition, illustrating what to the English mind is a subject that comes under the category of "vulgar," and is certainly the reverse of elevating. But French official selections in art do not illustrate that purifying and ennobling influence on artistic taste which has been supposed by some writers to be a natural outcome of Republicanism. The principal purchase of the year in sculpture, for instance, is M. Fremiet's large group, "Orangs-outangs et Sauvage de Bornéo," the power of which is unquestionable, but which is one of the most brutal and revolting works we have ever seen in sculpture. The taste for cruel subjects is unfortunately too characteristic of French art, without being unnecessarily fostered by a paternal Government. In this same exhibition we have one picture—life-size, too—of a saint being tortured by the application of red-hot irons to the soles of his feet, the effects on which are shown in the most horribly realistic manner; another scene in which a decapitated victim of the guillotine is seen lying in the middle of the floor of an interior; another (a very large work this) of some barbarous Hungarian princess enjoying the pastime of seeing women frozen to death by being placed naked in the snow bound hand and foot; the opportunity being seized to paint the contrast between the living bodies of the struggling victims and the grey pallor of those already dead. Of course we are not for a moment suggesting that it is the business of art to teach religion or morality; that idea is far too prevalent in this country as it is; and the French might retort against us by pointing to the complacency with which our public accept the dull Biblical pictures of Mr. Goodall or of the late Mr. Long. But surely choice of subject goes for something in painting and sculpture, and a prevalent taste for subjects which are cruel, brutal, or sensual, so long as they are treated with artistic power, is an indication of an unhealthy and somewhat debased state of public feeling. The story in M. Gervais' picture just referred to, which has been purchased by the State, illustrates the sensual element; the scene illustrated is low and even what we should call nasty in some of the details mentioned in the catalogue description, but it affords an opportunity for what is no doubt a splendid painting of the nude figure of the woman who forms the central object in the composition. Now we have so devout an opinion that the nude figure, both in painting and sculpture, is the highest medium of artistic expression, and its adequate treatment the noblest ambition of the artist, that on that very account we dislike to see it prostituted, as it were, to the illustration of scenes in which there is none of the poetry of art; of mere "incident pictures" on a great scale, in which the incident is vulgar and repellent in its associations and treatment.

To return to the purely artistic side of the matter, we complain that the large decorative paintings of the year, with two exceptions, are deficient either in decorative treatment or in point and interest. M. Jean Paul Laurens has hit upon an architecturally interesting subject in "La Muraille, 1218," representing the interior of a great château in which a crowd of labourers and fighting men are engaged in completing the upper portion of the fortifications; the spectator is inside the château on the level of the platform or scaffold on which the work is going on, the ramparts and turrets forming the boundary of the scene. The idea is a good one for a picture, but the scene does not impress itself on one as very real, and the composition is rather confused; there seems a want of a central and dominating movement. With this may be classed a modern scene of military work, M. Arus' large painting of a corps of engineers at work on the construction of a temporary timber bridge over a river. This is a kind of subject worth recording on canvas, though on this scale a place could only be found for it as a

* See *Builder* of June 2, 1894.

decoration in the hall of some large barracks or arsenal—which is possibly its destination. The practical details of the work are carefully gone into, and the subject gives the opportunity of painting a number of men in strenuous action, and it is well done in this sense; still, one can hardly call it effective from a pictorial point of view. At the new Salon we have the spaces at the extreme ends of the principal galleries occupied by two large pictures supposed to be decorative. Of these M. Roll's "Joies de la Vie" is decorative in style and design; that is to say, it is not a realistic picture; but it is cold and disagreeable in colour and absurd in conception; the sub-title is "Femmes, Fleurs, Musique," which is illustrated by a wooded landscape with a flowery glade in the foreground (all very grey in colour), with nude women lying about among the flowers, and three men in the costume of ordinary life playing violins behind! The combination is worse than ludicrous. M. Roll had better have kept to his cattle scenes. At the other extremity of the range of galleries is M. Lhermitte's large picture "Les Halles," a scene in the interior of the great Paris markets, in which a crowd of people and a mass of provisions of various kinds are painted on a very large scale and with great realistic force and vigour; this is intended for the decoration of the Hôtel de Ville, but anything more absolutely undecorative could not be imagined; it is simply an enormous *genre* picture, of the cabinet type, but magnified a dozen times beyond its suitable dimensions. Remarkable ability there is in it, no doubt, but it is not the kind of work we wish to see an artist like M. Lhermitte spending his time over. Among other works which are intended as decorative, may be mentioned M. Marioton's ceiling design "La Danse," in the old Salon, which is in true decorative style, and is light and effective in the colouring of the blue sky, and the draperied figures fluttering in it, but is marred by that unfortunate trick to which some French painters still adhere in ceiling designs, of painting architectural details, balustrades in this case, as if seen in perspective by the spectator looking up from below; a vile habit of catering for optical illusion which nothing can atone for. In the new Salon there is a rather remarkable series of pictures by M. La Touche, a set of the "Four Seasons," commissioned by the Ministry of Fine Arts, and obviously intended for the decoration of a room. Here the Seasons are typified by parties of women draped or half-draped in conventional costume, and grouped amid somewhat idealised garden scenes.—"Le Printemps, ou les Fleurs;" "L'Été, ou le Bain," &c.; and though these are not kept as flat as we used to think decorative pictures ought to be kept, they have the merit of consistency in conception and design, and of warm and luminous colour. The painter's larger work of the same kind, the "Apotheose de Watteau," has the same kind of merit, and is an effective composition as a whole, though marred by the ugly character of some of the heads. But, at all events, this group of paintings represents a class of work which may rightly be called decorative in design, and which has the important element of fine colour, without which "decorative" paintings deserve not the name. Another painting in a very different style, by M. Emile Friant, "Les Jours Heureux," which consists of three panels intended for the walls of the Hôtel de Ville of Nancy, has also the merit of luminosity, combined with a flat treatment, and a great deal of charming expression and character in the figures of the peasants and their children, who are enjoying a day in the fields. Although a more or less realistic subject, this is not a cabinet picture magnified, but a work suited, in its simplicity of line and composition, to wall-painting on a large scale.

The central decorative painting of the year, that of M. Puvis de Chavannes, is also to be found at the new Salon, and is intended for the public library at Boston; the title is "Les Muses Inspiratrices Acclament le Génie, Messager de Lumière." As everyone knows, "génie" has a double meaning in French; in this case it is "Genius," and not "Engineering," which is welcomed by the Muses, though persons of progressive mind might think that there is something to be said for the latter interpretation. The picture is a very long one, intended evidently to occupy the whole wall of a long room with a doorway in the centre of it; the ground-line of the scene slopes away towards each side, giving the idea of the summit of a green hill with the blue sea seen over it; the Muses, in bright white drapery, fly towards the centre of the composition, over which appears "Le Génie" standing on a cloud. We do not know that it is the most interesting or successful of the artist's numerous large wall paintings, but it has his usual qualities of fine design and spacing out of the figures, and a pleasing colour harmony of low tones. A point in the design is the treatment of the two sculpturesque figures which are painted in as supporters to the door-frame, but which are treated in a subdued grey tone which takes them out of the picture, placing them in an entirely different category from the other figures; they form, as it were, a picture within a picture; a delicate bit of æsthetic refinement. The work which we have referred to as the other successful decorative painting of the year is to be found in the old Salon; this is M. Henri Martin's frieze forming part of a decoration for the Hôtel de Ville. This occupies a large wall space cut into by two arched windows or doors, which govern to some extent the lines of the composition. It is a mystical composition, in which two men, apparently artists, clad in tolerably realistic costume, are seated in the larger spaces left between the arches, and are apparently encouraged or consoled by angels whose figures and large sweeping wings fill most of the remaining wall-space. We presume this is an "In Memoriam" to two deceased artists; or does it figure the encouragement of genius by spiritual aid? Neither catalogue nor picture gives any hint. The subject sounds curious in description, no doubt, and we wish the costume of the two men were more idealised; but it is a remarkable piece of really decorative painting, the colour being, though not strong, exceedingly rich and, moreover, original in effect, and the painter's well-known and peculiar technique suiting exceedingly well with this class of painting, giving it a rough and broken-up texture somewhat like that of mosaic, and far more effective in this sense than the smooth surface of ordinary fresco or oil painting. Indeed, this example seems to indicate that M. Henri Martin's proper and natural work is decorative wall-painting, and we hope he will have the opportunity of doing more of it. His pictorial work in the same room, "L'Inspiration," is by no means equal to the frieze.

Taking the average of the more important pictures of the year which, large or small, are to be classed as belonging to the category of cabinet pictures rather than decorative works, the level is perhaps, on the whole, about the same as usual; and (as usual again) the subjects in which the incident and story are of paramount importance are chiefly to be found in the old Salon, those in which the study and treatment attract us more than the story are to be found in the new Salon. There are exceptions to this in both directions, but this is the general tendency in the two exhibitions, which are really in a great measure parallel to our own Academy and New Gallery. In both, some of the very best pictures are by English artists, and it may be questioned whether Mr. Orchardson's "Madame Recamier," which holds a central and conspicuous place in one of the rooms, is not the best picture of the cabinet class in the whole Salon, taking colour, composition, and realisation of character together. Mr. Herkomer's lady of last year's Academy appears also, under the new title "Toute Nue, Toute Pure"; we will not say that this competes with the best French figure-painting, but in its total effect of air and colour it holds its place well. The taste for hospital and medical subjects at the old Salon seems on the wane; and the only important picture of the type (as far as we noticed), M. Brouillet's "Le Vaccin pour Croup à l'Hôpital Troupeau," is a favourable specimen of its class, carefully studied and not sensational. Of a similar class is M. Geoffroy's "Le Leçon de Dessin à l'Ecole Primaire," a commission from the Department of Fine Arts, and a very pleasing and sensible work; a study of boys at school in which truthfulness in representation of character and manner (the figures being evidently individual studies) is combined with a broad style and an absence of all merely commonplace realism. Among the works of a classic or academic nature which are still to be found in the old Salon M. Bouguereau's "Psyche et l'Amour," though as cold as all his performances, is singularly graceful and complete in the composition and grouping of the two figures, and M. Retru's "La Nuit Fuyant à l'Approche du Jour," in which Night seems to be sailing down, on a great bird with outstretched wings, into a dark ravine, over the edge of which the morning glow appears, is really a fine and successful thing of its kind. M. Gerôme has been making a curious experiment in effect in his picture with a long Latin title, which is really a new version of "Truth in the Well"—thrown down into it from above, the nude body being only lighted from the vertical light from the mouth of the well (far out of sight in the picture), which is represented as producing a curious cold purple tint in the flesh tones seen in this unusual light; her glass, flung after her and cracked, is in mid-air, just falling, and scatters prismatic reflections. The whole is an exceedingly curious study in effect and colour, though we should hardly call it the most interesting of Gerôme's works. M. Roybet is as powerful as usual, and somewhat less vulgar than usual, in "La Sarabande." M. Tattegrain, whose range of subjects is exceedingly varied, appears this year with a sea-fishing subject which leads one to regard him as the French Hook, though the figures are larger and more important in comparison with the landscape than is usually the case with Mr. Hook's sea-pictures. Among paintings which aim at a poetic or allegoric meaning, M. Dantan's "Le Temps Passe Vite" is impressive and well-intended, though a little mixed in the allegory; a visionary figure of Time seems to pass before two young lovers seated in a rural landscape. Visionary figures, which one can partly see through, are a doubtful kind of expedient in painting; but nevertheless, this work is not unimpressive. Among subjects drawn from ancient legend, a new and very poetic treatment is given by M. Demont to that of the Danaïdes, and M. Albert Laurens has imparted a kind of fascination to the hideous legend of Pasiphäe, which is treated in a manner to which there can be no objection if it is to be treated at all; and as the multitude probably do not know what it means, no particular harm is done. M. Henner's mannerisms are more marked than ever, and his principal contribution lacks the beauty of sentiment which generally characterised his earlier works. The trick of melting away the outline into a haze has been carried too far, and becomes a mere piece of almost mechanical handling. Among what may be called anecdotal pictures M. Dawant's "Maréchal Lannes," in the convent of St. Polten, tells its story well. The "Offrande à la Vierge" of M. Fabres is a very clever piece of minute detail of the kind which was invented by Meissonier, and merits notice as a return to an old source of effect which has been for some time practically abandoned at the Salon: it seems to attract a good deal of attention.

Among portraits the large and forcibly-painted equestrian portrait of the Prince of Wales and the Duke of Connaught, by M. Detaille, forms one of the rallying points at the old Salon, and deservedly so. There are a considerable number of fine portraits of the ordinary scale, among which may be specially noticed that of M. Ambroise Thomas by M. Baschet, that of a lady by M. Benjamin Constant—a rather forced piece of effect, however; a portrait of a lady by M. Cormon; another by M. Jules Lefebre; another by his pupil, Mdme. Lucas, and a very large portrait group by M. Chabas, "Chez M. Alphonse Lemerre," a group in the garden of a country-house, among whom are seen M. Daudet, M. Paul Bourget, M. Coppée, and other well-known men of letters. At the new Salon no one shows better in portraits than our countryman Mr. Lavery, whose portrait group of "Madame J. J. C. et sa Fille" is especially beautiful.

There seems to be a change perceptible in the tendencies and aims of French landscape painting. We have remarked in former years on the prevalence of large and carefully-studied landscapes which appeared to be absolutely destitute of light and atmosphere. There seems now, on the other hand, to be a prevalent endeavour to realise effects of very bright sunlight, in some cases with splendid success. M. Didier-Pouget's "Le Matin: bruyères en Fleurs" is an exceedingly fine representation of the effect of bright early morning light on a landscape full of colour. In M. Bourgeois' "Bords de la Creuse" we have another example of a mountainous landscape and a river, which is exceedingly powerful in sunlight effect, and several others of the larger landscapes in the old Salon show the same quality. The effect of this is so marked that on coming, in the new Salon, on two or three of Mr. H. W. B. Davis's landscapes, including the one known at the Academy as "Elderberry," called here "L'Eté," and the still finer one "Au Frais" (we forget the name it bore in London), the eye is actually affected with a sense of their being wanting in light. Of course it may be replied that this is all the more proof that they are true to the effect of English climate and light as compared with that of France, but they would have appeared bright by the side of many of the most prominent French landscapes of the Salons of a year or two back. It seems satisfactory to find that the French landscape-painters have discovered that they have the blessings of a brighter sun and a clearer sky than we enjoy, and that this aspect of Nature is worth painting. In respect of sea-painting we can see no improvement, and nearly all the bits of sea-painting in either exhibition which are really good and truthful representations of the sea are not by Frenchmen, but by American-born artists domiciled in Paris.

We have confined ourselves here to indicating the merits (or the reverse) of a few of the most prominent works of the year, and the general tendencies discernable in French painting as represented at this year's Salons; to go further into detail would be beyond our scope or our space. We noted many works worth attention, to which we cannot refer particularly. On the whole, the proportion of good to bad or indifferent paintings is higher in the new Salon than in the old, which is what may be expected from the fact that the actual number of works exhibited is smaller, and the wall-space much more limited. The old Salon suffers in quality, taken all round, from the very fact of its quantity; indifferent works are admitted to fill up the space; but, nevertheless, the finest works of the year, in landscape especially, are to be found there.

It would be natural to bestow more space on the sculpture, an art more closely connected with architecture than painting, except in its most purely decorative form, can be said to be; but we fear it must be admitted that the level of French sculpture, as illustrated at the Palais de l'Industrie, is falling very much; at all events there is very little this year, among the mass of works exhibited, which is of high interest. Remembering what the sculpture collection there has been on one or two occasions during the last five or six years, one cannot tell very well what has come to sculpture in France just now. A general level of execution is always maintained, but the majority of the numerous works of the present year are characterised, as far as conception and design go, either by commonplace or extravagance; and in sculpture it is difficult to say which is worst. M. Falguière, indeed, could be neither extravagant nor commonplace, but he seems to have taken to doing portrait statues of people in hats and greatcoats and boots, which is not what sculpture was meant for, and not what his genius was meant for. The finest and most thoughtful work is M. Mercié's group of Joan of Arc supported by the ideal figure of France; a group intended for Domremy. This is not a sensational Joan of Arc in armour, but the country girl, in her rustic simplicity, receiving from the hands of France (a colossal female figure clad in a mantle covered with fleur-de-lis) the sword, which she grasps and extends in her hand as if unused to it, and not quite knowing what to do with it. A lamb following at her feet typifies the shepherdesses' life which she was to abandon. The conception is fine and pathetic. M. Paul Dubois treats the military aspect of the heroine in a bronze equestrian statue, which is both dignified and animated. M. Puech's vision of St. Antony of Padua is a pretty bas-relief, but hardly worthy of him. Realistic sculpture is well represented by M. Hugues's terra-cotta figure, "Un Potier." Among the few works which exhibit an individual and poetic character is M. Cordonnier's "Électricité," a curious but animated conception, a figure of a thin nervous young woman standing upright, as straight as a post, with a sarcastic expression of mischief on her face. But there are few things to be seen with anything like the *verve* and originality of this. The majority of the works may be described as "conscientious nudes," to which various poetic names are appended, but the poetry seems to end with the names. It is difficult to account for this sudden quiescence in the creative genius of French sculpture; let us hope it is only a temporary lull. It is at the new Salon, where the sculpture exhibits are much less numerous and usually less important than at the old Salon, that we must look for the most powerful and original work of the year in sculpture. This is M. Bartholomé's large relief, "Projet d'un Monument aux Morts." At the top of the composition, in the centre, is an arched doorway which one may take, perhaps, to be the entrance to the house of Death, just within which stand a nude man and woman with their backs to the spectator, leaning against opposite sides of the entrance and as if gazing into it.* On either side of this stretches an expanse of wall in front of which are a row of figures, arranged so as to form a sloping line on either hand, in various attitudes and expressions of grief. Below the whole is a tomb with two recumbent figures and an angel watching them. It is not easy to read the exact intention of the artist in every detail, but the general idea is obvious enough, and as a poem in sculpture we have seen few things of late years to equal it in interest and pathos. To see this work is alone worth a visit to the Champ de Mars Salon.

* If we remember right, this central group was exhibited a year or two ago, or a study for it, as a separate work.

## THE LIMITS OF MUNICIPAL ENTERPRISE.

THAT there should be a tendency to urge on Municipal Corporations an increase of their duties and responsibilities in the direction of the ownership and management of various undertakings within the area of their jurisdiction, is not in the least surprising. It is a practical outcome of the spirit of socialism which undoubtedly exists at the present day. It is a less alarming form of this movement to many than are such projects as the nationalisation of the land; but it is important that no one should be mistaken as to the length to which this movement for municipal ownership and management may be carried if once it gets beyond legitimate bounds. We propose to state shortly what appear to be the true limits of municipal ownership and management in regard to matters beyond those such as police, sanitation, and so forth, about which there can be no question.

It is well to bear in mind that a municipal corporation is only one form of representative government, and that the object of representative government is that all classes may have representatives who will manage the affairs of the community for the best advantage of the community as a whole, and not for the advantage of any particular class of that community—in a word, the representatives are elected to govern a locality. These are no doubt very elementary statements, but unless they are recognised and acted on there is no basis from which to start. It is equally obvious that there are certain things which are necessities of existence. No one, rich or poor, can do without light for the purpose of finding his way about a town. Therefore we may go a step further and say that a municipal corporation is entitled to supply certain necessaries of civilised existence when those necessaries can be supplied to the community as a whole, and without coming into competition with private persons, and are required by the community without distinction of class. Light in the streets of a town falls clearly within this principle. Light in a house would appear not to be within it; the means of illumination are so various that householders may each prefer a different kind of light. It is impossible to supply one kind of illuminating power which is required by the community as a whole. It is equally impossible to find one power which has not rivals. The moment, therefore, that a municipal corporation begins to supply gas or electricity to householders it enters into trade competition. It begins to be a trader, and it is exposed to the fluctuations of trade, and the community as a whole may be called on to pay in case of loss for the supply of an illuminating power which is only used by a limited number of persons in that community. Some even of that very community who are ratepayers and traders who supply a different illuminating power, may have to pay rates which enable the municipality to compete against themselves.

Water, again, is a necessity of existence, from a sanitary point of view. It is obvious, therefore, that it is legitimate for a municipality to supply water to the community. No one need drink it, but every one requires to wash. Water is so essential for all culinary operations, that even apart from its use as a cleansing agent it is probably of sufficient necessity and of sufficient use to every member of the community to justify its supply by a municipality on this ground. But it is equally certain that the supply of water is the only one which is legitimate. On the Continent it has been argued that municipal bakeries should be established. Bread, however, is of such infinite variety that it cannot be regarded as at all analogous to water. Moreover, a municipality which began to supply bread must either enter into competition with private persons, or else the supply of bread must be confined to the municipality, in which event the community would at once begin to suffer from the evils attendant on a monopoly. The same objections apply to the municipalisation of locomotion. It is open to numerous objections. The municipality becomes a trader, and enters into competition with persons or firms who supply means of locomotion. Nor can the supply be general unless omnibuses and tramways

alike become the property of the municipality; even then the supply is not general, there are a certain number of persons to whom it is of no use. It may be said that the supply even partially of the means of locomotion may bring a certain amount of money into the municipal exchequer to the aid of the rates. But if in one instance money is made, in another it may be lost, and if the supply of the means of locomotion is employed for the purpose, so may the supply of tea, sugar, and tobacco—in other words, to allow municipalites to supply the means of locomotion is, in principle, to say that they may take up any form of trading. In so doing a municipality goes beyond its proper duties, which are, in the first instance, to govern the locality. The only exception to this general rule is in regard to the supply of water.

This, as we have pointed out, differs so essentially from the supply of any other article of use that it is within the sphere of the duties of a municipality. These are elementary considerations, but they are not always kept in view. When the Corporation of Manchester and Salford handed over the ratepayers' money to the Ship Canal, they were lost sight of, with disastrous financial results to the localities. When the London County Council became the possessors of a small portion of the tramway lines of London, they again infringed the same elementary and useful principles, which should be engrained in the mind of every member of a local governing body and of every ratepayer who assists to elect that body.

## NOTES.

THE opening of the Liverpool School of Architecture and Applied Arts, which took place on Friday last week, is an event of considerable importance, and the occasion was rendered the more interesting by the delivery of an admirable address by Mr. T. G. Jackson, who had been invited to be present on the occasion. The substance of this we give in another column. The tone and tendency of it are most wholesome and practical in the main, and there is little in it with which most artists will not cordially agree. Perhaps we may suggest that there is one side of the subject, as regards the conditions under which architecture is practised, which has been a little overlooked. When Mr. Jackson implies that the architect should be rather a man working at the building itself than a man sitting in an office and making drawings for it—in some cases we fear it might be said, getting them made for him—it may be replied that however well this system may have answered for a Mediæval cathedral, the conditions are rather different in the case of a modern very complicated building, such as a town hall, in which the convenient working of a number of different departments in their proper relation to each other has to be provided for and considered in the planning, together with the important questions of lighting, heating, and ventilation. No such building can ever be properly planned without a great deal of work on paper, and such as can only be properly carried out on paper. You cannot try an actual arrangement of walls one way on the ground, and then pull them down and rebuild them in another arrangement when the first one is found to be defective or not the best possible. Such things can only be done on paper, and the more thoroughly the work is done on paper first, the more satisfactory is the final result likely to be. Then, again, the practical necessities of modern life have to be taken into account. Life moves faster than it did, and people want their large buildings produced quickly, and this will not be done without a great deal of division of labour and special arrangement for carrying out the whole without unnecessary waste of time. No doubt these conditions are unfavourable to the production of the best architecture, but their existence cannot be overlooked, and the architect on the building "in his shirt-sleeves" will hardly be able to take the comprehensive survey of the position which the circumstances require. That an architect should give more of his time and personal attendance to a large building than is often the case we certainly think. Some of the French architects have set us a good example in this. Duc, it has been said, when he was commissioned to carry out his great building, the Palais de Justice at Paris, practically devoted his life to it. That means a small income and giving up the glorious gains of five-percentages on various simultaneous works; but it is the nobler part. In this respect the 5 per cent. system is very mischievous to architecture, and much better opportunities for an architect to do justice to a great work would be gained if he were at liberty (by common consent, that is—of course he is at liberty theoretically) to make a charge commensurate with his genius and position, as a painter can. Finally, we may ask, Do all those who preach the gospel of the personal work of the architect on the building find themselves able to carry it out? We remember calling in one day on two of the authors of "Architecture, a Profession or an Art," and finding them both writing letters in an office like any of the Philistines; one of them, as he conscientiously confessed, "not even having the T-square out."

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IN the *Athenæum* of last week (Saturday, 11) we are told that the German School at Athens has succeeded in putting together some fragments from the pediment of the "Peisistratean Parthenon." If this refers to the foundations lying below the present Parthenon, and presumably begun by either Cimon or Themistocles, that building never to our knowledge attained any pediment sculptures; if, on the other hand, the writer refers to the old "pre-Persian" temple of Athene, whose foundations lie to the north of the Parthenon, that structure was certainly never a Parthenon, and was only in part—*i.e.*, as far as its colonnade—Peisistratean. It is, in fact, to this building, so mis-called, that the sculptures in question do belong. We were present, a fortnight ago, while the fragments were in process of being put together in the annexe of the Acropolis Museum. The work has been a long and difficult one, but crowned with unexpected success. Two fine groups are now so far complete as to make the subject intelligible. They both belong to a Gigantomachia, and include a stooping figure of the goddess Athene, and a fallen giant. They will shortly be published, and we will not anticipate their fuller discussion.

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THE betterment question is likely soon to be a thing of the past. At the meeting of the County Council on Tuesday last it was announced that a compromise on the matter had been arranged, and that the advocates of betterment had agreed to what is known as the Manchester clause, with three modifications. These are matters of detail, and we are inclined to think that they improve the clause. The first is that no claim for worsement shall be made in respect of buildings outside the betterment area. The second shortens the time in which an owner can compel the Council to purchase his property; the third amendment excludes any valuation by a jury in case of disagreement, and leaves the matter entirely to arbitration. The clause, as inserted in the Tower Bridge Approach Bill by the Committee of the House of Commons, will therefore have to be altered, either when the Bill comes before the House of Lords, or when it comes up for third reading in the House of Commons. The most satisfactory point of the compromise is that it shows that the antagonism between the two parties in the County Council is lessening, and that they are setting themselves to do the work of the Council in a sensible spirit of giving and taking.

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THE most interesting portion of the speeches which were made last week by Mr. Balfour and Mr. Chamberlain at a banquet given by the London Municipal Society to celebrate the victories at the last County Council election, was that in which Mr. Balfour dealt with the necessity of the best men taking part in the local affairs of London. It is unquestionable that the rural elections to District and Parish Councils have shown very strongly the long and well-marked feature of the best men in a locality interesting themselves in its government. "But," said Mr. Balfour, "it is not always the men who ought to take the lead in municipal institutions in London who actually do so." The accusation against London is just. The last elections to the County Council have shown, we think, some awakening of a more clear-sighted spirit. It is much to be hoped that important public men will continue to point out that there is no worthier end for the ambition and the energy of a citizen of London than to assist in its local government. As Mr. Balfour truly said, London ought to be able to surpass the public spirit which is always visible in the provinces.

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THE recent annual meeting—the first which has yet taken place, of the "National Trust for Places of Historic Interest or Natural Beauty," showed that the society is likely to do useful work. A sea cliff overlooking the town of Barmouth has been handed over to it, and the Council is taking steps for the preservation of more than one historic spot. That this society may be useful in drawing public attention to the increasing necessity of preserving the remaining places of historic interest in the country there can be no doubt, but we fear that active interference to prevent vandalism of any kind will be of little avail unless the Trust can back up its protests by substantial pecuniary compensation. We are inclined to think that the most useful function of the Trust will be as an aid to those persons who desire to hand over land or buildings to a body which is of a permanent kind, and may be trusted to take good care of any property entrusted to it for the benefit of the whole community. Sometimes such places may be transferred as gifts, sometimes for a pecuniary consideration.

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THE Austrian and German architectural journals have been much occupied lately with an unfortunate controversy as to the relative shares of the late Gottfried Semper and Baron Hasenauer in the designing of the new museums and the "Hofburg" theatre at Vienna. Public opinion, generally, only associates Von Hasenauer's name with these buildings, and the deceased baron by no means went out of his way to change the popular belief. Though a correspondent of our own some three years back found Baron Hasenauer in every way ready to acknowledge Professor Semper's share in the work, when interrogated on the subject, we have frequently heard very different stories, and we certainly know of several instances where the baron's friends attempted to publicly ridicule the idea of Gottfried Semper's collaboration. There was an attempt of this kind soon after Baron Hasenauer's death, and this has now led Herr Manfred Semper to publish some documents which do much to clear up the question, but have naturally had the effect of raising a fresh discussion. The anti-Hasenauer version is correct in its facts, but its tone is somewhat too partial. We certainly hold that it would be most correct if simple collaboration on equal terms were now ascribed to the two deceased architects. There is not the slightest doubt that the original designs were by Semper, and also some of the exterior detail, whilst Baron

Hasenauer practically carried out the work alone, managed everything, and was responsible for the whole of the elaborate interior decoration and construction. It was the Baron's misfortune that he chanced to be a courtier and a Court favourite, and hence there was a good deal of envy and jealousy excited in regard to him.

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THE dispute as to the appointment of the architect to the new Cardiff Museum and Art Gallery, and the action of the Cardiff South Wales and Monmouthshire Society of Architects in memorialising the Corporation on the subject, about which a good deal of comment and correspondence has taken place in our columns, has ended as, we think, it ought to have ended, by the appointment of Mr. Seward as architect to the new buildings. It may be remembered that the Cardiff Society of Architects sent a memorial to the Corporation which practically amounted to an invitation to throw the commission open to public competition, and that Mr. Seward, who had already taken some part in advising and making sketches in reference to the proposed buildings, considered that he had a moral claim to the appointment of architect to them, and that the action of the Society was an attempted interference with his position; a view which we endorsed as soon as we had all the arguments on both sides before us. The Corporation, according to the report of the meeting of the Museum Building Committee in the *South Wales Daily News*, have fully accepted this view of the matter. The memorial from the Society of Architects was read at the meeting, after which a letter from Mr. Seward was read, asking the Committee to take into consideration certain facts relating to his position in the matter, and which have already been given in our columns. On this the Mayor said that he wished, as Mayor of Cardiff, to move himself the proposal, in order to give proper effect to it, that Mr. Seward should be retained as architect for the new building, observing that if Mr. Seward had no legal claim on them he had certainly a moral claim. The resolution was carried unanimously, and was followed by another to the effect that the memorialists should be informed that the Committee felt itself morally pledged to Mr. Seward. It is noticeable that in the course of the proceedings a letter was read from Mr. Jenkins, of Llandilo, stating that his name had been attached to the memorial without his knowledge or consent. The result will probably convince the Cardiff Society of Architects that, to say the least, their action was a mistake, and it is to be hoped that the subject, and a certain amount of bitterness which arose in regard to it, will now be forgotten as soon as possible.

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THE lectures for shop and out-door foremen, now being given on Wednesday evenings by the Carpenters' Company, at Carpenters' Hall, London Wall, have so far been admirably adapted to the requirements of those for whom they are intended, and have been given before a large number of students. The lecture by Mr. James Bartlett last Wednesday, on the setting-out and construction of staircases and joints in joinery, was especially thorough, but it was not easy to see the details of some of the lecturer's rather small diagrams, and it was quite impossible for those students who were compelled to sit some distance from the low lecture-table to see the models which were exhibited and described by the lecturer. The floor of the room is on one level, and it would, perhaps, be unreasonable to expect the Company to make any alteration in this respect, but we would suggest that, where possible, the diagrams should be larger, and that the table for the exhibition of objects should be raised so that every student would be able to see without difficulty the excellent models which are shown and described,

WE have before us two reports to the Local Government Board, one by Dr. W. W. E. Fletcher on the Sanitary Circumstances of the Desborough Urban District, and the other by Dr. S. W. Wheaton, on the Prevalence of Fever in the Mold Urban Sanitary District. In regard to Desborough, the water supply seems to be of a very unsatisfactory nature. The sub-soil is very open and porous, and rests upon a bed of clay which holds up the soil-water; hence, water is readily obtained by sinking wells down to the clay. Water thus obtained forms the only supply for drinking and cooking purposes in Desborough. The wells, mostly draw-wells, are said to average some 20 ft. in depth; they are dry-steined with local stone, and consequently are not secured against soakage into them of water from the superficial soil: in fact it is by such water that they are fed. The nature of the soil and the proximity of most of the wells to various possible sources of pollution render them very liable to contamination. Over 230 of these wells exist in the village, and nightsoil and refuse removed from privy middens are used on gardens, not infrequently in proximity to the wells. In the case of the Mold Sanitary (?!) District, sheer filth seems to be accountable for the prevalence of fever in the district. The privies belonging to some houses are in such a filthy condition in many instances that the people cannot use them; consequently the ground behind the houses is littered with excrement. The condition of some houses in a court in Milford-street is thus described: "The houses are very old; the floors are of brick, and for the most part covered with dirt; the walls of the houses in which fever has occurred are covered with filth, and there is no spouting for the conveyance of rain-water from the roofs. There are no house drains; liquid refuse is thrown on the surface of the ground, where it stagnates in pools, the overflow from which passes through a hole in the wall into an adjoining field. Into this field, the wall bounding which is situated about five yards from the houses in the court, several midden privies belonging to dwellings outside the court discharge through holes in the wall, and filth from them, together with liquid refuse from the houses, accumulates in pools on the surface. At the time when the fever first occurred here the privies were so full that the filth in them rose to the level of the seats, and people were unable to use them. Subsequently these privies and middens were partly emptied, but not by the Sanitary Authority; there are still large accumulations of filth remaining in them." Does the Mold Urban Sanitary Authority intend to take any steps to remedy this state of things?

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AN old thatched cottage in London, only three miles and three furlongs distant in a straight line from St. Paul's—this, assuredly, ranks, after its kind, as one of the strangest survivals that can now be found. The cottage is in Paddington, standing on a plot of land behind St. Mary's-terrace (east side), and is occupied by the caretaker of the adjacent "Cenhadaeth Eglwysig Cymraeg," or Welsh Church of St. David's. The church is but a temporary iron structure, to be replaced shortly by a new one, together with schools and a vicarage, and to make room for these the cottage will be pulled down. It is approached by a pathway lined along one side by trees; its ground-floor, having two doors with porches, is built of flint and rubble of pebble covered with rough-cast, the attic floor, gained by an iron staircase, has dormer-windows. There are eight rooms in all, much modernised; the large room in the first story is fitted all round with cupboards, the porches even are similarly fitted. This singular relic of a bygone time when the village green, now considerably curtailed, extended to its doors, and westwards to Dudley Grove, and along the south side of Harrow-road opposite the church, is known in the neighbourhood as Chambers's Cottage, and, it is said, was inhabited by a banker, so-named, in the early years of this century. It is, however, of a much earlier date than his day. The cottage and land, we gather, were given to the Welsh congregation, about five years ago, by the Ecclesiastical Commissioners. We notice, too, that from Dudley House, or Grove, at the foot of the bridge across the canal basin and the railways, have been removed the wooden outbuildings in which Matthew Cotes Wyatt modelled and cast his statue of the Duke of Wellington, now at Aldershot. The statue was drawn from that foundry to Hyde Park Corner on September 29, 1846.

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THE Earl of Dunraven made a sensible protest in the London County Council in favour of throwing open the building work of the Council by public advertisement, on the ground that the Council were trustees of public money and were bound to adopt whatever system would carry out work at least cost to the ratepayers. The appeal to give the Works Committee the opportunity of going on further, and see if they would not make a good thing of it, he trenchantly characterised as "a gambler's argument." The resolution proposed by Mr. Beachcroft was negatived, but the majority against it was not a very large one, and perhaps in time the voice of common sense and sound economy may yet be listened to.

## ARCHITECTURE AT THE ROYAL ACADEMY. II.

THE central place in regard to secular or business buildings is occupied by Mr. Waterhouse's water-colour drawing of the Prudential Assurance Company's offices at Edinburgh (1,463). No plan is given; we wish the Academician architects would set the example of always appending plans to their drawings, and then perhaps others who omit this necessary explanation of an architectural design would follow their lead. The site is an angle one, which gives Mr. Waterhouse the opportunity of accentuating the angle of the building in his favourite manner, by developing it into an octagonal turret. The ground story is occupied by large shop or office windows, differently treated on the two faces, and this variety in treatment is carried out in the arrangement of the gables which break the roof-line. Over the second story a strong modillion cornice runs along both faces and binds the whole together. The drawing is executed in the free and powerful watercolour style which the architect has made his own.

Public buildings and street buildings are not very numerous this year; the majority of those not already described belonging to the class of domestic architecture. Among the few buildings not of this latter class is Mr. Bottomley's "Grange-road Schools, Middlesbrough" (1,424), a rather slightly-executed water-colour drawing of a red brick building of a simplified Elizabethan style, or approaching to it, with an octagon turret at the angle, which comes in well; the general effect is picturesque, and suitable to its purpose; there is unfortunately no plan. Mr. Field's "Proposed Hampstead Library" (1,438), is, we presume, a competition design; a plan is given; for a building in which aspect is so important, a north point should have been added, as indeed it should be on all plans made for exhibition and to explain a design, but this is a detail seldom remembered. The building is a very plain brick one with a heavy cornice which gives a certain dignity to it. As a matter of expression we should have preferred to have seen some distinction of treatment between the windows to the left of the entrance, which light a large room, and those on the right, which light the lobby fronting the reference library. The latter is, we presume, lighted from the top, though this is not indicated. The general character of the building is suited to its purpose and also to the architectural character of the locality.

No. 1,458 is the premiated design for the Halifax Bank, by Messrs. Horsfall & Williams. We cannot say very much for the architectural interest or originality of the design, but it must be admitted that it is exactly the kind of architecture that bankers generally prefer. To most

of them a bank is not half a bank unless it has pilasters on the front. It is perhaps with this conviction that Mr. Tulloch, in his detail drawing of a portion of the elevation of a design for the same building, uses attached columns over a rusticated granite podium; but there is more character in this design, in which the appearance of strength and massiveness has been specially studied; a section of the wall is added. This kind of geometrical detail drawing is a type of drawing of which we would gladly see more in the Architectural Room, though it was hardly very fair to the author to hang it without the general design, which we believe was submitted. Another design for the Hampstead Public Library is exhibted by Mr. Arnold S. Tayler (1,459); it would be difficult perhaps to define why, but it suggests a school building with a chapel attached, rather than a public library; it has the character of domestic architecture, which is proper to a school, but not to a public library. A study for a public library is exhibited by Mr. Percy E. Newton (1,588), being a perspective view of the original and picturesque design which gained him a Royal Academy prize early in the year. No plan is given; if we remember right, the elevation is not altogether a very complete expression of the plan. Whether this specially suggests a library or not, it at all events suggests a public institution on a small scale; there is, perhaps, a little too much apparent effort after originality, but the originality is at all events obtained, though a little eccentricity in some of the details requires toning down. A sculptured frieze is well introduced, and is an important addition to the character of the building.

Messrs. Young & Hall's "Hostel of God: Free Home for the Dying" (1,473) takes the form of an irregular quadrangle, with the fourth side open. The plan is deficient in having no indication of the purposes of the various rooms, except the beds, which show which are the wards; and as these are all grouped at one side of the quad, we presume that is the sunny side, but here again a north point was wanted. The building, shown in a neat line drawing, is simply and suitably treated; this is a case in which quiet and unpretending treatment is the most suitable architectural expression.

Among small public building designs Mr. Tulloch's competition design for "Municipal Buildings at King's Lynn" (1,493) is noticeable as showing a peculiar treatment, with the walls partly constructed in squares of dark and light material, which no doubt has been adopted to sympathise with local architectural character; a course which is always to be approved of, unless perhaps where the new building is a large and important one of different scale and for a different purpose from the existing buildings of the locality. This, in its peculiar style, is a pleasing and suitable design for Municipal offices for a small town. Mr. Campbell Jones's suggested design for "Town Hall, Baldock, Herts" (1,498), a pleasing little building in very quiet style, has on the other hand rather too much the appearance of a row of cottages to be quite suitable as a town hall even for a very small place, as this obviously is.

Messrs. Clark & Moscrop's "Selected design for Municipal Buildings, Darlington" (1,570), one of the larger exhibits, owes a good deal to the beautiful drawing, by a well-known hand. No plan is given; the exhibit is simply a picture, or rather three pictures. The treatment and grouping of the windows, pilasters, and panelling has a very good effect, and seems to have been carefully studied, though it must be admitted that the details are all of a character which may be considered now to be common property. Another municipal building is the selected design for Llandudno, by Mr. Silcock, also devoid of a plan: it is a pleasing building of Classic type, with a plain rusticated ground-story and an order above; some carved panels introduced between the columns, near the top of the wall, give a little special character to it, and the whole is a pleasing and well-balanced building, except that we would point out that the balustrading on the recessed portion of the front is too large, and out of scale with the other details; this might be remedied in execution, as we presume the building cannot have progressed very far as yet.

Mr. Aston Webb's "Stafford County Infirmary —remodelled" (1,555) is an interesting example of what may be done to improve and give interest to a plain utilitarian building by remodelling, without altering its utilitarian character. A small elevation and plan of the building as it was before remodelling are added below the perspective view, as well as the amended plan. An old-fashioned and very in-and-out plan has been converted into a symmetrical and good working plan, with important additions at each end, and in place of the old mean-looking and irregular elevation we now see a building which, in spite of its plain character, has a certain amount of architectural dignity imparted to it by the balancing of the blocks on each side of a centre, the accentuation of certain portions by a little simple architectural treatment, and by the practical improvement of cutting off the ward blocks from the administration centre by partially open arcaded corridors of communication. A small building of the hospital class which may be mentioned is Messrs. Cheston & Perkin's "Seaside Convalescent Home," for the East London Hospital children (1,528); a simple building of domestic character, with the bath and lavatory portions (those for the boys at least) placed in an octagon turret which gives a feature to the exterior. Plans to the same scale as the elevations are given, and a north point. The building is a very pleasing one of its class, but in the plan the retiring-rooms are hardly as well placed as they might have been: it would have been better to have placed the door of the girls' room further from and not immediately in sight of the boys' room, and the boys' water-closet upstairs is separated by the whole width of the building from their dormitory.

Mr. Walters's "St. John's Seminary, Wonersh" (1,576), is provided with a plan, but it would have been more intelligible if a list of references giving the use of the rooms had been provided. Where the plan is on too small a scale to allow of the names of the rooms being legibly written on them, it is always possible to append a list of their uses, with reference letters to the rooms. Architects may say that no one will take the trouble to look at them, and, of course, the general public will not, but architects who go to look at the designs in a serious spirit will. In the case referred to the plan is a long line of buildings with a chapel at one end, and two transeptal portions in the main building, which appear to be large school-rooms, but these are connected by a very long apartment (with side rooms opening out of it), 150 ft. long and 25 ft. wide. If this is only a corridor, why such a width? The small rooms on each side of the chapel, which have through communication with each other, but none with the chapel, are also rather inexplicable. The style of treatment, a sort of Queen Anne, of brick with light stone bands and voussoirs, &c., is rather curious for a building of this type, especially when we come to the chapel, which, with tower terminated by a hipped ogee roof and a little classic lantern, has a very secular, even "business" look. The whole building, however, is an interesting and unusual one, which is the reason we should have liked more explanation of the plan.

In speaking of the church designs in our former article we passed over accidentally an unpretending pencil drawing of a "Design for Wesleyan Chapel at Blaina, Mon." (1,436) by Mr. W. L. Griffiths, which is a work of some originality in a plain and simple manner. The general feeling of it is Gothic, though the windows are square-headed, and at the sides are merely of the sash-window type, with corresponding dormer windows over them; at the end is a large mullioned window, and at the angle a square turret finishing with a circular stage with buttresses projecting to each angle of the square. This seems to be an attempt to provide a chapel of the plain character probably preferred by Welsh Wesleyanism, but at the same time to give it a little architectural character, and this has been successfully done.

We defer our remarks on house architecture and decorative work and sketches to another occasion.

## THE ARCHITECTURAL ASSOCIATION:

### TREILLAGE.

THE ordinary meeting of the members of the Architectural Association was held on the 10th inst., in the Meeting Room of the Royal Institute of British Architects, Mr. Francis G. F. Hooper, Vice-President, presiding.

Mr. W. B. Dukes having been elected a member of the Association,

A cordial vote of thanks was passed to Mr. Mountford for allowing the members to visit his building, St. Olave's Grammar School, Southwark, on the preceding Saturday, and for kindly providing tea.

It was announced that the annual dinner of the members of the Association would take place on Friday, the 31st inst., at the Holborn Restaurant.

The Chairman said that in accordance with By-law 31 he had now to submit the nominations of officers for the coming Session. The members had heard the names proposed at the last meeting,* and in addition, Mr. A. W. Webb had been nominated for election on the Committee, being proposed by Mr. Collard, and seconded by Mr. Parkes.

Messrs. Tyers, Taylor, Agutter, and Greenop were then appointed scrutineers for the election.

Mr. John Belcher next read the following paper on "Treillage":—

In addressing you this evening on "Treillage" it may be objected that I have selected a somewhat trivial subject, and one unworthy of the serious attention of an architect. But I venture to do so because I am convinced that (in the architect's hands) it is a simple and suggestive medium by which he can obtain important and good effects in connexion with gardens and domestic buildings.

Wherever wood construction has been in vogue varied treatment of "post-and-rail" and "lattice-work" has been in use all the world over.

India and Burmah, China and Japan, each has its characteristic treatment worked out with wonderful elaboration and finish. The familiar Cairo lattice-work is another variety of the same thing in the East. While every European country upon which the sun shines has its own method of affording shade and shelter by trellis-work.

The words "treillage" and "trellis" are sometimes used interchangeably, but the distinction between them would seem to be that treillage, originally at any rate, meant a series of posts and rails, to support espaliers and fruit-trees, while trellis was appropriated to mere lattice-work.

The comprehensive title of "trellis"-work is now, however, in general use for all varieties; while "treillage" is a technical term (obviously from the French) "not generally understanded of the people."

Treillage probably originated in Italy, in vine-training, and its use extended for trailing plants and creepers. It thus came to be used in pleasure-gardens in connexion with trellis proper, and a recognition of its use and beauty so combined led to its adaptation to architectural treatment. In old tapestries as well as in illuminated MSS. you will find trellis-work and palisades represented in many garden scenes. There is a beautiful picture by Luini (date about 1490) entitled "Our Lady of the Lattice," which shows that treillage was appreciated by the painter.

Mr. Reginald Blomfield, in his book on "The Formal Garden in England," gives an illustration of a garden dating from the latter part of the fifteenth-century. It is taken from "The Romance of the Rose," in the British Museum. It is a walled-in garden sub-divided by a trellis fence in which is an arched gateway with trellis gates.

Again there is a very suggestive example in "The Gardener's Labyrinth," published in 1577. The gate at the top is the exit into the open country beyond, and the archway on the right is the entrance which communicates with the cultivated grounds. The central enclosure is formed of ornamental pilasters and trellis-work.

I do not propose to attempt, even if I were able to do so, any historical description of the gradual development of trellis-work. My object is to suggest its more extended use and recognition. I would point out that it has a poetical and romantic side as well as a useful one. Such a medium may be to the architect what clay is to the sculptor: in it he may venture to give shape to some poetic dream of ethereal architecture which has visited his brain, or at any rate (if this seem too large a flight of fancy) he may realise, if only temporarily, some playful fancy for his own satisfaction in work which from the very nature of its material cannot be taken seriously, or raise great expectations. It is the ease and facility with which daring experiments can be made which render it valuable. It can be altered and shifted at pleasure until the desired effect is obtained in a way which more solid and valuable materials prohibit.

And it thus affords opportunities for judging effects which may subsequently be translated into stone or brick. So that those workers who are yet in the flush of youth, and who possess that enthusiasm which in youth is the natural prescriptive right of all, while its retention in advanced age is a special grace given but to the few, may even find in trellis-work a means of expression of their "soarings after the infinite." To the student it presents the advantage of a material in which he can try experiments. He can buy a bundle or two of plasterers' laths and interlace them, and form panels and arches and many

* See the *Builder*, page 328 *ante*.

devices within a few feet of the back wall of his garden, which will increase its interest. And beyond all this I think trellis-work itself is capable of a further development—of being adapted to other uses than those to which it has hitherto been applied—uses for which its nature and lightness render it suitable, while its decorative character must be recognised by every artist.

As its form and use grew out of the necessities of the garden, I will give priority to the consideration of its use and value in laying out a garden. I suppose I may take it for granted that an architect admits the importance and recognises the advantage of the "formal" garden in the immediate proximity of his building.

The T-square and set-square should be used in planning the courts and spaces outside the four walls of the house. Its straight lines should be extended and linked with nature, stretching out on every side like tendrils to attach it to the soil. This is effected by enclosing garden-walls, and entrance and kitchen courts, by terraces and tennis grounds.

My partiality for the formal old English garden tempts me to a dissertation on its advantages, but I must confine my remarks to the employment of trellis-work to obtain certain effects.

In the art of laying-out a garden, as in architectural design, there is a certain seductive mystery gained by partially concealing and judiciously screening some parts from immediate view. By this means the imagination is tempted to conjecture the presence of hidden delights beyond, and interest is quickened in expectation of some further enchantment.

Besides the fact that divisions of some kind are necessary for such surprises to the casual visitor, they have always the additional and permanent advantage of affording seclusion, quiet, and comfort. The very flowers and shrubs enjoy the retreat, for in the shelter they luxuriate, and their sweet fragrance is not dispersed by rude winds. Tall hedges of yew, laurel, or holly form substantial divisions, but years must elapse before such hedges can be effective. And here the common or garden trellis will prove the temporary substitute. Against it the hedge can be planted and protected and trained. On the wood-trellis roses, clematis, jessamine, and honeysuckle will climb readily, and show their preference for it over cold and uncongenial iron rods and chains or wire.

With the flexible laths, deep archways can be formed in the trellis division just long enough to form a dark frame to the picture beyond. Or if a peep is required here or there, a few laths can be cut and a bent piece or hoop of wood, circular or oval, inserted, forming an unglazed window in the trellis or hedge. There is an example in the Penshurst garden.

Again, should it be desirable that the upper part of a high screen, or parts of it, be more open or only partially hide what is behind it, then the trellis can be cut into patterns more or less open as desired—sometimes in panels, sometimes in a running pattern.

It is to the credit of lawn tennis from the point of view of the architect, that it has given him an opportunity to make some formal division of the grounds; and in this case the trellis screen is of such obvious utility in protecting the flower-garden, that it will appeal to most clients. If the ground for the tennis-courts is sunk, as it should be, the height of the slope and fence combined will suffice to stop the balls passing beyond.

How difficult it is to persuade a client to screen off any part of his ground! He has an idea that he will lose something unless he can see it all at once; that the extent of his possession will not be appreciated by others.

An Englishman will go any length to obtain a separate compartment to himself in a railway train, yet has not the same desire for seclusion on his own land. His active temperament and love of exercise draws him to the open country. Whereas the Dutch, on the other hand, whose grounds are restricted, like repose and seclusion, and the Chinese, who are not walkers by choice, prefer to cram into the smallest area diminutive imitations of nature in every mood, with mountains, rocks, water, rivers, bridges, all in strange profusion and exaggerated quaintness.

Examine an old willow-pattern plate and see the trellis-work in use, the palisading, the bridge, and the varied trellis patterns suggested in the margin.

I can only allude to foreign work now, and must confine my attention to our own traditional methods, which have been largely formed on the Chinese.

Judging from the accounts preserved of work done by Henry VIII. at Hampton Court after Wolsey's death in 1530, he must have made use of treillage and trellis very largely. We find described 180 posts and "960 yds. of rayle," painted white and green.

In the design of the garden in the "Gardeners' Labyrinth" we have evidently an early architectural treatment, showing pilasters or terminals with panels of trellis-work.

In some old gardens the enclosures are shaped and laid out in geometrical forms, niches for statuary or vases, circular apses for family or social gatherings, and sheltered places for one or more. I have just completed in this manner a rose garden with a rose temple, of which I have brought you the plan and details. Open seats in the shade are preferable to the highly-varnished "rustic summer-house" atrocity, which is the cockney's delight!

Treillage suggests the shady walk or covered alley. The posts with top rail and cross rails on which may be grown roses, honeysuckle and such like.

The Italian treatment of the horizontal tie is excellent, the shaped ends projecting beyond the post; in profile they group well and look picturesque.

The Chinese and Japanese have a similar treatment of the horizontal bar over entrances, but the ends are turned up.

Bacon in his essay on an ideal garden says:—"For the ordering of the ground. . . I leave it to a variety of device. . . Little low hedges, round like welts, with some pretty pyramids I like well; and in some places fair columns upon frames of carpenters' work."

These trellis columns are very effective, and can be used for garden retreats and in conservatories, for round them many flowering creepers can be entwined.

One of the most successful examples I know of open trellis columns and entablature and cornice is in the garden of Mr. Alma Tadema. It was carried out some years ago by Mr. Brydon, who has most kindly lent us his drawings. You will appreciate, I know, these working-drawings and studies. Nothing could be better than this bit of trellis architecture, which is beautiful in summer and winter alike.

I will ask you to note the plan. Its arrangement gives length to the lawn, while the open appearance is still preserved; but in walking along the pathway the spectator is partially screened, and enjoys a succession of framed pictures between the columns. At the circular apse round the edge of the semi-pond, the columns are placed closer together and form a protective fence. They are reflected with their rose attire in the water beneath them, a happy mixture of nature and art. It is not architecture in the severe and solemn stateliness of public life, but as it were relaxing in private, and with light and playful fancy mixing with the flowers in their own domain; disporting with freedom in the sweet seclusion of the garden enclosed.

It may be well, while we have so good an example before us, to examine the detail and construction, and learn how this fairy-like effect is obtained.

There is first of all a certain commendable and quiet humour evinced and maintained throughout.

The interpretation of columns and entablature into trellis-work is worthy of your attention. The "flutings" of the column are represented by the voids, and the "fillets" by the laths. In the lower part of the columns, to one-third of their height, there are "reeds" represented by circular rods. The laths and reeds are fastened to rings at intervals. The "Ionic caps," with their "volutes," are ingeniously managed. The introduction of the "triglyph" in this "order" is also amusing. Then a fretwork pattern is happily introduced in the facia, and round balls at regular intervals in the bottom member. These devices I shall have occasion to notice in pointing out developments in some seventeenth-century examples. There are other architectural garden "properties" shown on the drawings which go to prove how adaptable trellis laths are to curved and other work.

In 1773, Sir William Chambers published a "Dissertation on Oriental Gardens," and illustrated his designs for the Pagoda and Chinese temples at Kew. I have reproduced one example. His work probably encouraged and extended the use of trellis-work in England, so that trellis verandahs and porches became exceedingly popular. They were used, not only in favourite seaside resorts and suburban residences, but examples are also to be found in fashionable neighbourhoods and round the parks. And I now propose to draw your attention to some examples of these which I have collected, and which are either good or instructive.

In Piccadilly, for instance, there is a good and refined example at the residence of the Duke of Cambridge. It is of the "Adams period." The division of this long verandah is effective. The larger openings are in front of the windows, and the intermediate arches, with their double circle ornament above, make a pleasing diversity. The construction is very light and suitable to a balcony carried on consoles.

Example No. 2 at the Marble Arch is inferior though good in its way. The projecting porch no doubt determined the width of the arches, and the divisions are filled in with lattice-work. Here the facia is open and the pattern varied. You will see the same facia pattern in Example No. 3 at the corner of George-street, Hanover-square. This is a most fascinating one of excellent proportion. Here we see a valance introduced under the gutter (a feature which found great favour with engineers in finishing the platform covering to railway-stations).

In Example No. 4 there is a similar valance both to the verandah in the right-hand corner of the view and that to the bow window. The latter is carried by slight reeded columns and caps, between these is a kind of trellis curtain and fringe of bells which gives it a Chinese flavour.

There is another form of valance and post to the upper balcony in Example No. 5. The lower balcony, which has evidently been designed from trellis examples, cannot, however, be claimed as such.

Still another variety of "valance," and probably an earlier one, is seen in the interesting Example No. 6. And I have seen others showing a still more realistic curtain treatment, which I fancy must have been designed by the same hand, for the intersecting circles in the pilaster and filling in of the spandrils of the Tudor arch are the same.

In Example No. 7 we have a departure from the lattice-work and a more open treatment of the divisions suggested by Chinese examples.

A most striking and clever adaptation of Chinese forms is seen in Example No. 8, and the panel over the arch shows how openings can be ornamentally formed in the trellis-work.

Example No. 17 is a good and simple bay-shaped verandah. The treatment is excellent. I commend it to your attention, when you are passing Grosvenor-gate. It is at the corner of Upper Grosvenor-street.

The other examples are but variations on those I have already described. Nos. 13, 14, and 15 are taken from designs by C. Middleton, published in the last century by J. Taylor.

In passing, I should like to draw your attention to the wrought- and cast-iron railing enclosures to the balconies; they partake of much of the refinement of the period of the trellis verandahs.

I have refrained from describing examples of *iron* trellis-work, as I consider they form a separate subject. I have, however, brought one or two examples. The one from a house opposite the Marble Arch is good, and the treatment of the balcony railing interesting.

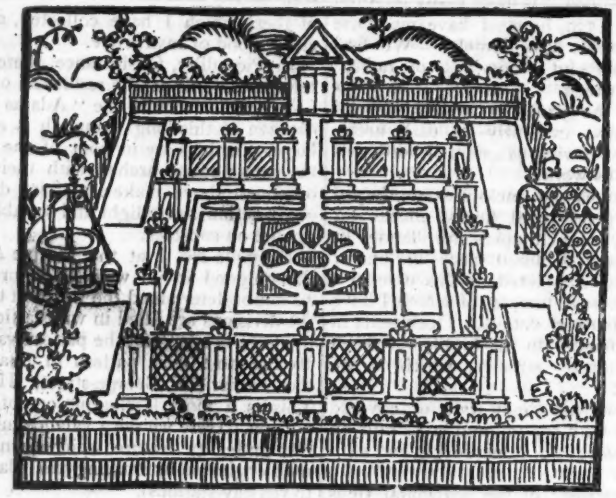
The stone or marble trellis of the East, and the marble trellis of Italy, contain many forms which can be translated into wood treatment, but it cannot be too strongly insisted upon that the forms suitable to one material are unfit for, and should not be imitated in, another.

The construction of fences, arches, verandahs, and porches in trellis-work is exceedingly simple. In division fences the posts vary in thickness, according to their height and distance apart, and are frequently finished with some sort of terminal; a small fillet is all that is used to keep the ends of the laths in position against the posts. The top and bottom rails are often plain, the top having a projecting cover piece, or are sometimes moulded, and the bottom rail is kept well off the ground. The laths are arranged in several ways, and in larger or smaller meshes, as lightness or increased density is required.

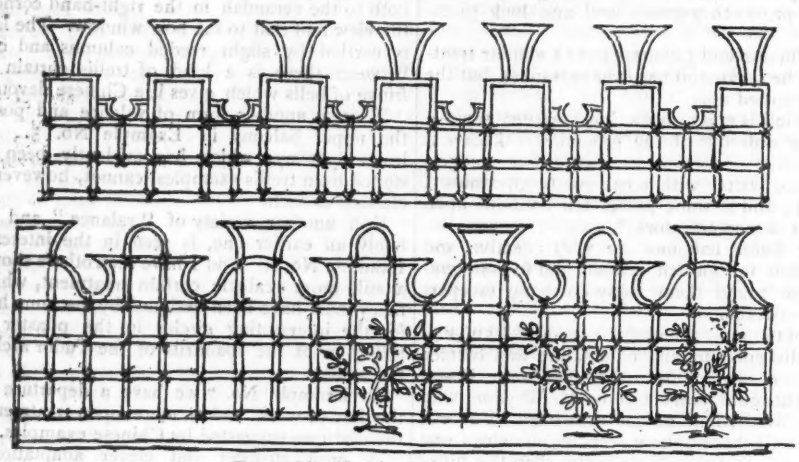
In garden fences the laths are sometimes interlaced, but more usually they are laid across each other, and pinned together in squares or diamonds. Other variations are obtained by doubling the lines of the pattern, as shown on some of the examples before you.

When, however, in verandahs and porches, for instance, other geometrical forms are needed, they are made up of circles, curves, and radiating bars, mostly put together in sections, though some of them are cut out, and form a species of fret-work.

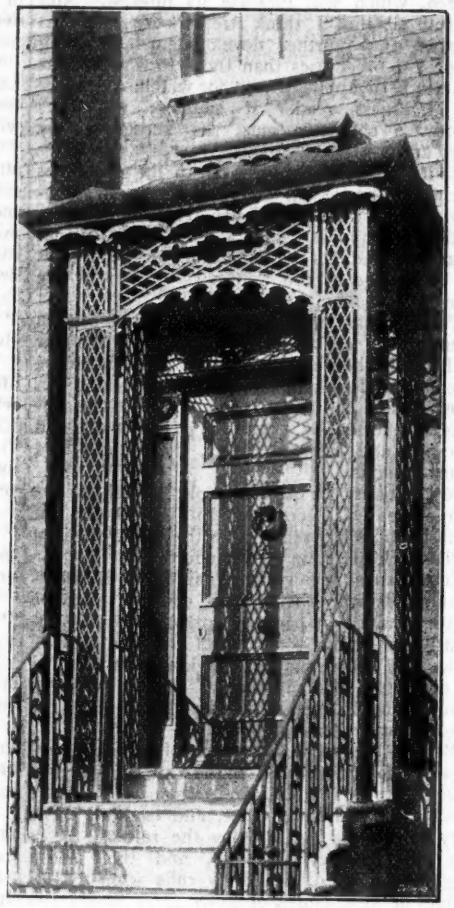
Instead of the ordinary thin lath, strips or fillets of greater thickness, ranging from $\frac{3}{4}$ in. by $\frac{1}{2}$ in. and upwards, are used when the pattern is very



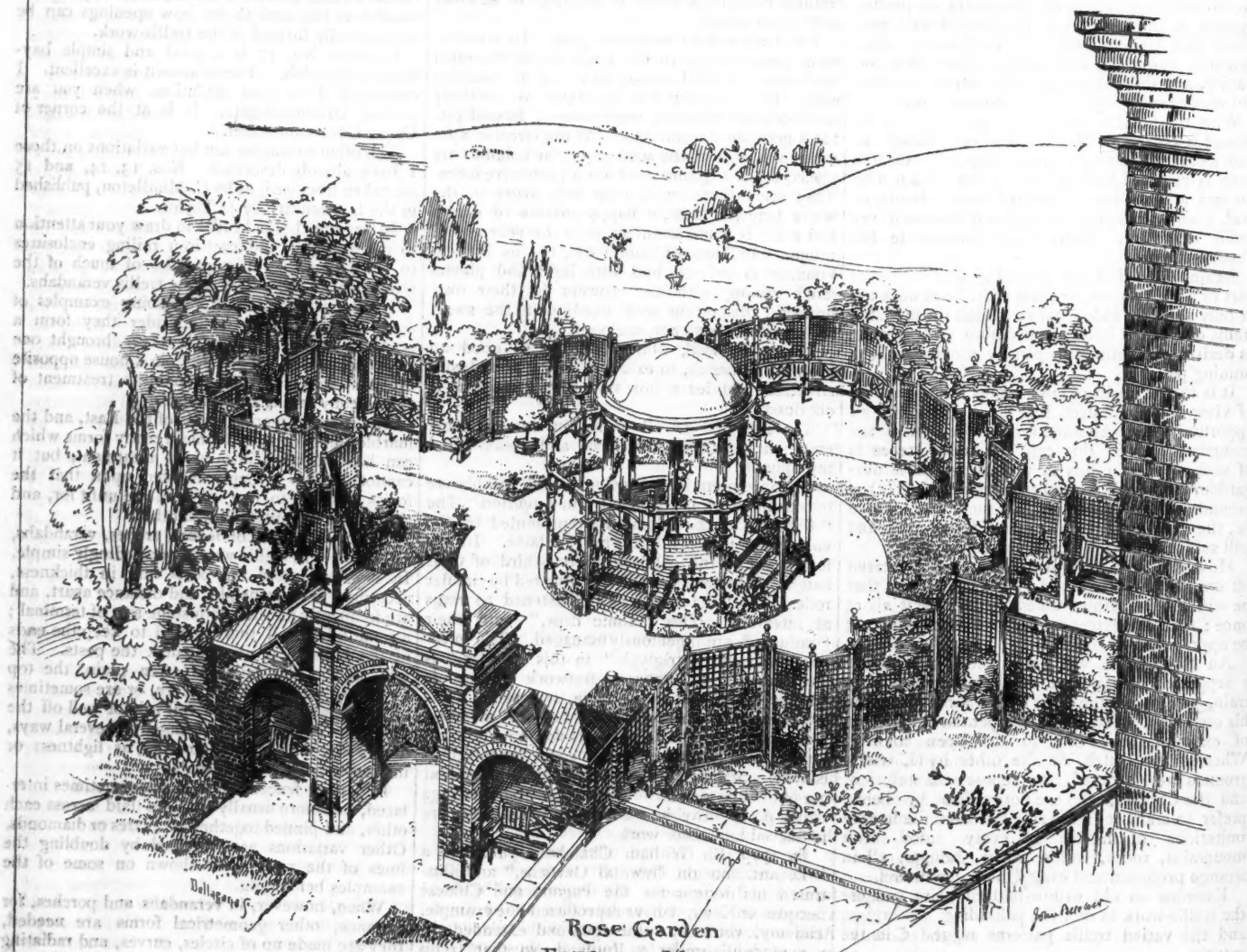
*From "The Gardener's Labyrinth."*



*From Markham's "Country Farm."*



*A Treillage Porch.*




*Illustrations to Mr. Belcher's Paper at the Architectural Association.*

open. The columns at 17, Grove End-road, N.W., are constructed in this manner, as are those in Example No. 20, but in other examples the columns are formed of laths on rings, in which case a centre post is necessary. No. 20 is an example in which a thin lath is twisted round the column. It is not only graceful, but serves to bind together the sheaf of laths.

The porch in Example No. 19 is a typical one, showing the curved and interlacing circles. It is put together in pieces with brads. I have figured the sizes of the several parts. Other devices I have mentioned, such as the use of turned wooden balls or reels are used to separate the constructional posts from the smaller pieces between them. They are well shown in No. 9, and also in Nos. 1, 6, 8. In Example No. 2, instead of the ball, the division is made with square fillets.

The "ball" is also used as a fringe ornament as in Example No. 10, and is easily nailed to the soffit.

In Example No. 6 a three-quarter circular rod has been cut up into inch lengths, which have been fixed under the facia as a kind of dentil course. Square dentils are also frequently used, as they are easily bradded on the cornice.

In many of the best examples of verandahs, we may note that the constructional timbers are reeded, or treated with a hollow moulding to secure a light appearance. Small reeded columns are not unusual, as in Examples No. 4 and No. 10, and indeed form a very characteristic wood treatment of the period. The caps to such columns also are interesting, and some in form resemble a mushroom button, as in Example No. 18.

In Example No. 16, which is taken from Weale's "Carpentry," published in 1852 (a book which contains examples from Brighton), the details of the construction are given.

In trellis designs it is the solids and voids which must be taken into consideration. How admirably this has been calculated in No. 6. The dentils and the valance, &c., stand out against the black void.

Garden seats with trellis work backs were very general in the last century. The backs, and sometimes other parts, were arranged in panels very similar to those on balconies. Such seats have been reproduced in many forms by Mr. Marcus Stone in his pictures. They are so excellent in design and so ornamental to the garden that a revival of the treatment may well be advocated.

It would no doubt be generally difficult to supersede the imitation rustic seats in cast-iron and other cheap forms of garden seats; but for special positions, and particularly where a circular seat is required, place should be found for the work in wood. There is a good seat designed by Mr. Blomfield, which he has kindly lent me with other drawings.

In connection with treillage I must not omit to mention the several forms of palisade already hinted at. The earliest decorative one is the example I have taken from Mr. Blomfield's book. Later ones consist of variations of the post and rail, with plain or shaped laths of more or less elaborate design.

Colour was largely employed in emphasising the forms of trellis-work. Green and white, and red and white were the colours in vogue in old work, if we may rely on tapestries and the painters' accounts preserved.

When, however, oak is used in garden-work the delightful silvery-tint it gains with age is valuable. If the work is in deal then the dark green is most effective. For verandahs, &c., the dark green also tells well against a plaster or cement background, but when the brick wall is dark in tone then white or stone colour looks well.

With regard to the fuather use of trellis-work, which I have hinted at, I might say that amongst other ways in which its use might be developed is in internal domestic work. The staircase affords an opportunity, as instead of the ordinary baluster, some trellis-pattern can be effectively adapted.

There is one on the screen which has been designed from an old example I found in a house in Gloucestershire. And I have also seen beautiful trellis enclosures to the landings on an old staircase, carried up to the ceiling with arches, pilasters, and window openings of quaint design and detail.

Opportunity is also afforded to the County Council for the use of trellis-work in the erection of "band-stands" in the people's recreation grounds. The pavilion designed by Sir W. Chambers is very suggestive and quite adapted to such a purpose. Light ironwork is too brittle, and is easily broken, whereas the wood gives, and even if a lath is snapped it is more easily repaired than ironwork.

Their garden seats and shelters also afford excellent opportunities for its use.

Doubtless you can call to memory many a quaint and beautiful example of trellis-work in screens, colonnades, verandahs, and porches. Indeed, there are so many still existing in localities now remote and retired, but which were fashionable last century, that it is not possible to produce here more than a few typical examples.

It is sad to think that when these interesting neighbourhoods come to be opened up for so-called improvements, red brick with terra-cotta trimmings will be substituted for the houses and their contemporary trellis-work.

If only we might return again to the simple brick or plaster front without an ounce of unnecessary detail, but decorated with some festive little trellis balcony or porch, how refreshing it would prove, and would be less costly and quite as lasting.

A well-designed piece of trellis-work gives to the substantial building to which it is attached something of that grace which is lent to garden architecture by the natural growth of creepers.

I know that much more might be said, and better said, in favour of trellis-work and its more extended use, but I hope I have said enough to rouse your interest in it, and that the examples I have brought to your notice at least warrant my drawing attention to the subject of treillage.

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Mr. J. M. Brydon said he had much pleasure in coming down that evening to listen to a paper written by a man who had thoroughly studied the subject. There had been very little written on this matter, and the only really good examples one could find when one came to study it, were in the old houses which Mr. Belcher had pointed out, and which were unfortunately too rapidly disappearing. Mr. Belcher had referred to what had been done in Mr. Alma Tadema's garden, though it was not done for Mr. Tadema, but for Mr. Jas. Tissot, the French painter, who owned the place at the time, and was the result of that artist's love of eighteenth-century English architecture. The work was made up of bundles of sticks, and the secret was in the proportions and details, the whole effect being gained by light and shade. The work itself was mainly founded on some of the old work still to be found in Euston-square, and on an old house in Cumberland Market. He thought that a good deal more could probably be made of this kind of work than appeared at first sight, but it was not every client of theirs who had the inclination to cut up his garden, because the feeling generally was to make as much as possible of the little space available in a London back-garden. In the neighbourhood of St. John's Wood, of course, gardens were larger, and there were better opportunities for the use of trellis-work, and in the case of the garden in Grove End-road, the idea in view was to provide, if possible, backgrounds for Mr. Tissot's paintings. It was almost impossible now to buy an old garden-seat, and he had applied to all manner of people who had designs in their catalogues, without effect. The only way to get one was to set to work and design it. He was rather astonished, too, in these days of revival, that the old garden-seat had not been revived. If someone would only take the trouble to work up the designs, there would be a good demand for them, as nothing could be more atrocious than the curved iron seat, and there was certainly nothing more uncomfortable to sit on. The paper they had heard that evening came from a man who, it could be easily seen, had studied the laying-out of gardens in a loving spirit, and that was the great point, for if one only loved a subject it was sure to come right in the end. The arrangement of decreasing the width of the garden path so as to give the idea of distance, was an ingenious one, and in a small garden a little trick of that kind might be indulged in to improve the effect and increase the distance. Mr. Brydon concluded by proposing a vote of thanks to Mr. Belcher.

Mr. A. S. Tayler, in seconding the vote of thanks, said he had been exceedingly interested in the paper. He had often looked at trellis-work, and thought how old were some of the forms which were used. He remembered hearing a lecture on Egyptian architecture at the Royal Academy, which was illustrated with belvederes or verandahs similar in form to those on the screen. The lecturer on that occasion pointed out how common that description of work was in Egypt at one time, but how fast the trellis-work was disappearing from that country. Several Egyptian screens were to be seen in the South Kensington Museum, which were well worth studying. He believed that the dryness of the Egyptian climate had preserved them, and it was very interesting to find examples of so great an age.

Mr. F. T. W. Goldsmith (Hon. Sec.) supported the vote of thanks. He would ask Mr. Belcher to add to his kindness, after the vote of thanks had been passed, by informally taking them round the room and explaining the many interesting examples exhibited on the screens.

The Chairman, in putting the vote of thanks to the meeting, said it was extremely pleasant to be introduced to so homely a subject. It would increase their interest in walking through many of the old districts of London and its suburbs, and specially following out the observations which Mr. Belcher had so happily made. To see beauty in common things was, he considered, part of the functions of an architect, and the suggestion just made by their Hon. Sec., to ask Mr. Belcher to explain the drawings he had brought with him, was an admirable one.

The vote of thanks was then put, and carried by acclamation.

Mr. Belcher, in replying, remarked that he was not altogether surprised to find that there had been little discussion on the subject that evening. When he volunteered to read the paper, he thought it would be exceedingly easy to find a great deal already written on the matter, but to his astonishment, he found there was absolutely nothing available. He was aware of no work upon the subject, and even those who had to lay out gardens knew next to nothing about trellis-work. He was not surprised, therefore, at his remarks not being criticised more freely. Mention had been made about the Egyptian work, which was fast disappearing. It was vanishing so fast a few years ago, that a law was passed prohibiting the sending it out of the country. A great deal had been sent over here, but, being recognised as a decorative material, they had finally to stop its deportation from Egypt. He thanked the meeting for the attention they had given to his paper, and proceeded then to explain the details of the drawings.

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ARCHITECTURAL ASSOCIATION: DISCUSSION SECTION.—The twelfth meeting of the Session of the Discussion Section of the Association was held at the rooms of the Association, 56, Great Marlborough-street, on Wednesday. Mr. W. Henry White, A.R.I.B.A., occupied the chair, and the paper of the evening, entitled "The Queer Side of the Profession," was read by Mr. F. T. W. Miller, A.R.I.B.A. The discussion was opened by Mr. Sheridan, and continued by Messrs. Greenop, Satchell, and Brodie. Mr. Searles-Wood, F.R.I.B.A., the Special Visitor, having commented upon the paper, votes of thanks were passed to the author and to Mr. Searles-Wood, and the meeting adjourned.

## MR. T. G. JACKSON ON ARCHITECTURAL PRACTICE.

THE following is the substance of the speech made by Mr. T. G. Jackson on the occasion last week of the opening of the Liverpool School of Architecture and Applied Arts, as reported in the *Liverpool Daily Post*:—Mr. Jackson, in the course of his remarks, said there were associated with architecture two vital misconceptions. The first was that architecture was mere ornamentation—something that was only skin-deep, and a matter of expense merely. The second was that it applied only to town-halls, churches, and the like, and not to ordinary buildings, in the same way that a carriage and pair or a footman and butler were out of the reach of ordinary people. If those ideas were true, architecture would not be in the true sense an art at all; it would not be art applied, but misapplied. But these ideas were wholly false. Architecture was not the art of tricking out a building with ornamentation; it was the art of building well, and, at the same time, building beautifully. It was nothing but good construction, inspired from first to last with artistic motive. Ornament was not a necessary part of it; often ornament was far better left out, for ornamentation was the last resource of the incompetent architect. As one of their own professors had put it, when a man could not design, he fell back upon ornament. Nor was expense a necessary part of it. Many of our buildings would have been better if less had been spent on them. On the contrary, no building was too humble for architectural treatment, and architecture was no more a luxury than was

virtue. The true architect built plainly where it was necessary, splendidly where there was need for diginified expression, but always basing design upon construction, always adapting effect to the occasion, and by cheerfully obeying constructive necessities from first to last, shaping and adapting forms suggested by construction into beautiful and harmonious combinations. Thus architecture inspired building with the artistic motive from the laying of the first brick to the driving of the last nail. How was the good architect to be made? A true artist worked unconsciously, in a good way, and produced a good thing. They might set another man to do the same thing but the result would not be beautiful. The artistic instinct was born with a man. There were those who had none of it; others, most of us, who had enough to enjoy the works of artists; others who had the instinct of beauty so strong within them that they could not help giving it expression either in literary composition, or music, or by what were called the fine arts. But though a man might be born with this instinct it was worth little without study and instruction. A man might be of the right material to begin with, but training was necessary to enable him to use his gifts, and to shape him into an artist. These considerations appeared to him apposite on such an occasion as that then present. Their school was an experiment, an interesting experiment, the result of which would be waited for with anxiety; but, experiment though it might be, experience was not to be overlooked by those who had the direction of it. In this connexion he desired to refer to the comparative values of training architects by the apprenticeship system, which in their case still survived; and by scholastic teaching. He laid stress on the former. There was nothing like real work, the practical work of an office, for enabling a youth to acquire knowledge with rapidity. But although he held that no school training could be substituted for apprentice training, he was far from saying that the latter could give the student all he would require for his career. It needed to be supplemented in a thousand ways, which the student must discover for himself, and such a school as that would be of infinite service to him. One of the results of the modern method was that it shut up the student in the architect's office. This isolation of the architect was a matter of comparative recent date. In former days it was not so. If they wished to know how the great masters of old accomplished their art, they must picture to themselves a very different system to that which was in vogue to-day. They would not find, as now, the architect sitting in his easy-chair in his private office receiving his clients, and surrounded by his clerks and draftsmen; but a much humbler picture would have to take its place. They would find the architect with his tools in his hand amongst his own workmen, and in his shirt-sleeves, providing he possessed a shirt. These old masters were nothing more than workmen, for they not only designed the work for their assistants, but also worked manually in bringing that work to a successful completion. Thus, whereas the modern architect resembled the professional man, and designed his buildings on paper, and only visited the scene of operations from time to time the old architect lived on the building, and designed it with his own hands. The advantages of the old method over the modern were obvious, since architecture and sculpture depended upon the right use of material no less than a right principle of design. Under the present system the architects were too often more in the position of learners than of teachers. They had workmen under them who knew how to do work better than they themselves did. They had to design without ever having held an instrument in their hands. The consequence was that they often set men to do things in difficult and roundabout ways, which might have been done much better. All this resulted from the fact that architects were trained on paper, and as long as they were so they could not hope for anything better. It was important that they should face the fact, and see what could be done to remedy it. If every young architect were made to spend a year or more in a mason's yard working as a mason, original ideas would be formed which could not be got in any other way, and this would save him from those mistakes in the construction of material which so disgraced the modern practice. He hoped this would form part of their work at University College, or that arrangement could be made with master builders to open their yards and workshops for the reception of students, and he trusted those master builders and members of the Building Trades' Federation who occupied seats on that council would give effect to the suggestion he had made. There was another evil in shutting up students in an architect's office, and that was that it kept them away from the study of the sister arts. The consequence was that, when occasion arose, it was impossible for artists acquainted with each other to produce harmonious results. Architecture was the art of building on a grand scale, as sculpture was the art of building on a small scale, and of all the arts these two were the least separable. It was most essential, therefore, that these two should be trained alike, and a happy consummation attained as in the older times, when the same man could work in each. There in that school they had a ready remedy, for they proposed to carry on instruction in the three great arts, and they might thus easily gather the students together. It was necessary that every architect should pass through the modelling-school, where he would learn to accomplish in concrete form what was to be done in buildings, and in the same way he would have every young sculptor trained in the school of architecture, so that he might learn to deal with work on a large scale, and that which lay more in the field of architecture than sculpture. It was not, however, only to the sculptor or to the painter that they would throw open their school of architecture, but he trusted that it would be open to all concerned in building, of whatever degree. It was essential that builders should take some architectural training in order that their work might be turned out in good taste, and he trusted that the students at that school would be largely made up of builders as well as of architects. In conclusion, Mr. Jackson said the scheme which the Liverpool School of Architecture and Applied Arts had in view was one which every true son of art would from his heart wish a successful issue, and which, if it succeeded, could not fail to have an abiding influence on the history of art in England.

# Illustrations.

## COMPETITION DESIGN FOR CHRIST'S HOSPITAL, HORSHAM.

THE general perspective view of Mr. T. G. Jackson's design for the proposed new Christ's Hospital Schools at Horsham, of which we give an illustration, hangs in a central position in the Royal Academy Architectural Room.

In explanation of his intentions in the design Mr. Jackson sends us the following extracts from the report which accompanied it when the competition drawings were sent in:—

"I have in the arrangement of the plan been guided largely by the four considerations—

1. That every block of building in which boys are housed should be lit and ventilated by windows on both sides.

2. That every part of the school buildings should be accessible under cover from every other part.

3. That no block should be farther than four or five minutes' walk from any other block, measured from door to door.

4. That all the boys' rooms should be commanded by the masters and matrons.

The effect of the first of these conditions on the plan is to draw out the boarding-houses into rather long and narrow buildings, which it was not at first sight easy to bring together into a compact form so as to satisfy the other conditions. I believe, however, I have succeeded in doing this by grouping the fourteen boarding-houses round two large quadrangles, and connecting them by means of a continuous cloister or covered walk, which affords dry communication to every part of the building. The two points most remote from one another are the headmaster's house, and the group of houses, Nos. 12, 13 and 14, but the distance is less than five minutes' walk, even round by the cloisters the whole way, and not much more than three minutes across the quadrangles. The axis of the building lies south-east and north-west, the main front facing south-east. This position secures the greatest amount of sunshine to every part of the school-buildings, and as the buildings are narrow, and lit on both sides, every part will get the sun on both sides during some part of the day.

The great hall is approached directly from the great quadrangle by a short corridor 20 ft. wide. It is in length, width, and height a reproduction of the great hall in Newgate-street, and I propose to use again the old roof, the wall panelling, the pulpit, the organ, and any other features of interest that can be removed, so as to preserve the memory of the old home of the School in London.

The class-rooms are arranged close to the great hall and around it, and vary in size.

The dining-hall, like the great hall to which it corresponds on the opposite side, is approached by a short corridor 20 ft. wide from the main quadrangle.

It will seat 820 boys at the dining-tables and between thirty and forty persons at the high table, and allow room for carving and serving tables in the middle.

The kitchen is an octagon, 60 ft. in diameter, occupying the centre of a court of its own and surrounded by its offices. Four covered ways lead from it to—

1. The great dining-hall.
2. The junior dining-hall.
3. The dining-rooms of masters, matrons, and the school servants.
4. The quarters of the kitchen servants, and the offices and stores of the steward and cook.

The whole school and its staff of masters and servants can thus be served conveniently from a single centre with great economy of labour.

The whole of the heating apparatus and hot-water service, also, is worked from the same centre.

I have tried to make the chapel simple and dignified and worthy of the great school it would serve.

A large ante-chapel, with transepts at the west end, will afford ample space for monuments of distinguished scholars. The organ is placed in a chamber over the cloister on the south side, close to the choir. A side-chapel or aisle on the north contains 104 sittings for adults, and the whole number of sittings is 1,006. The roof and ceiling would be of oak, and also the seats."

## DESIGN FOR HEADING OF PROGRAMME.

THE drawing from which this illustration was made, was drawn by Mr. Holiday for a heading to the programmes of concerts of the "Musical Guild," a society formed in 1887 by students who had finished their course at the Royal College of Music. The figures, as will be seen, represent the nine Muses.

We presume that the drawing was intended to be considerably reduced for the purpose of the programme heading; we give it simply as a decorative design. In the original drawing the words, "The Musical Guild" appear in the centre space left by the framework lines; but as these words, on a very large scale in this reproduction, seemed rather too obtrusive and have no obvious meaning in the design as reproduced here, we have used the space instead for the general title of the design, which sufficiently explains its object.

## DESCRIPTION OF NEW CHURCH OF ST. ETHELDREDA, FULHAM, S.W.

THIS church, which is to be proceeded with, in all probability, very shortly, is to be erected in the Fulham Palace-road. It is to seat 850 and to cost about 8,500*l*. The materials are red brick and stone dressings, &c., in the chancel, and a combination of these two with stock-bricks in the nave. This latter portion has a clear span of 38 ft., 48 ft. being the total internal width. For the sake of economy, combined with the greatest effect, the chancel is raised considerably, and the space underneath utilised for vestries, heating chamber, and small chapel; the floor-level of these being about 2 ft. below that of the nave. The roofs are constructed with stone ribs, and the vaults between these with coke-breeze concrete plastered on the under side.

A. H. SKIPWORTH.

ROUNDWOOD PUBLIC PARK, WILLESDEN.—On Saturday last Mr. R. D. M. Littler, Q.C., C.B., opened Roundwood Public Park, Harlesden-lane, Willesden, the first open space acquired by the Willesden Local Board. The park has an area of 26½ acres, and has been laid out with much taste by Mr. O. C. Robson, Engineer to the Urban District Council. At the entrance from Harlesden-lane wrought-iron gates have been erected, and just within are the new lodge and drinking fountain. A portion of the ground has been set apart as a gymnasium. All the work, with the exception of the gates, has been carried out by labour employed by the District Council, without the intervention of a contractor.

## INCORPORATED ASSOCIATION OF MUNICIPAL AND COUNTY ENGINEERS.

A SOUTH WALES district meeting—the first held in the Principality—of the Incorporated Association of Municipal and County Engineers, was held in the Council Chamber of the Town Hall, Cardiff, on the 11th inst. The Mayor of Cardiff (Ald. P. W. Carey, J.P.), presided at the commencement of the meeting, and amongst those present were the President (Mr. A. M. Fowler, of Manchester), Messrs. J. T. Eayes, West Bromwich; A. T. Davis, Shrewsbury; R. Godfrey, King's Norton; Hawkings, Somerton; Hall, Cheltenham; Bradley, Nelson; J. Parker, Nottingham; Harper, Newport; Thomas, Neath; and others.

The Mayor, in welcoming the members of the Association, said that welcome was accentuated by the fact that the President (Mr. Fowler) was connected with Cardiff forty years ago.

Mr. W. Harpur, M.Inst.C.E., Borough Engineer, then read a paper on the development of Cardiff. He said the population of Cardiff in 1871 was 56,911, in 1881 82,671, in 1891 128,849, and in 1895 155,637. The increase of the last ten years was 60·39 per cent. When he first became connected with municipal work at Cardiff, 19 years ago, the total length of highways repairable by the Corporation was 32 miles; the length now repairable was 97 miles. During the past ten years private improvement works had been executed in 268 streets, having a length of 29½ miles, at a cost of 103,710*l.* He ventured to assert that there was no town of equal size in the United Kingdom which, during the past ten years, could show such activity in the building trade as that of Cardiff. In those years 190 new streets, 10,473 new houses and shops, 56 places of worship, and 17 new schools, had been built. Upon these figures Cardiff claimed to be the most rapidly-increasing town in the United Kingdom, and to rank among the most prosperous towns in the world. During the ten years the sum of 58,701*l.* 14s. 11d. had been expended upon sewerage works in the borough. Sanction had also been obtained to the borrowing of 16,500*l.* for enlarging sewers, and the works would shortly be commenced. In the matter of public street improvement works of various kinds, in addition to those especially referred to, the Corporation had, since 1885, expended the sum of 88,565*l.*, and in the Cardiff Corporation Act, 1894, they had power to execute twenty-seven road, street, and bridge improvements, and to borrow the sum of 235,000*l.* therefor. In addition to the erection of the Clarence Bridge over the River Taff and the James-street Bridge over the Glamorganshire Canal in connexion with the same scheme, the Corporation had in the past ten years expended a no less sum than 41,673*l.* in constructing, widening, and improving thirteen road bridges crossing under or over the various railways in the borough. Nothing perhaps pointed more conclusively to the marvellous development of the town than the necessity for so large an expenditure on the bridges of the various railway companies, converting what were either dirty cattle creeps or common parish road bridges of 25 ft. or more span into bridges more in accord with the requirements of the traffic and more creditable to the general appearance of the town. The Clarence-road bridge was so named in honour of the late Duke of Clarence performing the opening ceremony on September 17, 1890. Prior to the construction of this bridge, the traffic of that part of the borough was conveyed over the River Taff by means of a private bridge, the property of the Penarth Harbour, Dock, and Railway Company. By the powers of the Act of Parliament under which this bridge was constructed, the Company were entitled to collect tolls from all persons using the bridge, but for many years after its erection the tolls collected would not have amounted to the wages of the toll collector, and in consequence the public were allowed the free use of the bridge until the spring of 1896, by which time the tolls would return a handsome revenue. In the meantime a large number of workmen's cottages had been erected on the western side of the river, the owners being totally in ignorance of the possibility at any time of the imposition of a toll for crossing the bridge. Upon the toll being first imposed the public using the bridge were greatly annoyed, and refused to pay the demand, and taking the law into their own hands on two occasions broke down the gates and threw the collector's lodge into the river. The Corporation endeavoured to intercede and to make redress to the company for the purchase of the bridge as public property, but failed in their negotiations, upon which it was determined to seek powers for the construction of a new bridge, which they did in the next Session of Parliament, and in 1887 obtained an Act authorising the construction of the new roads and bridges. The works comprised the formation and construction of about two-thirds of a mile of new roads 50 ft. wide, half-a-mile of roads 40 ft. wide, a bridge over the River Taff 464 ft. long, and one over the Glamorganshire Canal 104 ft. long, which formed a better and more direct communication between the commercial part of the town in the neighbourhood of the Bute Docks, and the rapidly-increasing suburbs of Grangetown and Canton. The Clarence Bridge, spanning the River Taff, comprises a central swinging-span of 190 ft. 8 in., providing two openings each of a clear width of 72 ft. for the passage of vessels navigating the river, and two-end fixed spans each 132 ft. from centre to centre of end piers. The foundations of the abutments were carried down to a depth of 6 ft. and the piers to an average depth of 12 ft. below the lowest point in the river bed, and were obtained in the case of the abutments by the use of close-timbered excavations, and for the piers by the use of wrought-iron caissons, sunk into the gravel by excavating from the inside. A ring of masonry was built upon the caisson as the sinking proceeded, and when the required depth was reached the bottom was carefully levelled and the whole filled with cement concrete, the caisson thus forming part of the permanent structure. The central pier upon which the swinging-span is supported, was on completion subjected to a test load of 1,000 tons of iron rails. This load was 30 per cent. more than the calculated maximum weight that the pier had to support, and the result was very satisfactory, the pier sinking at the most only five-sixteenths of an inch. Timber dolphins were placed up and down stream to protect the ends of the bridge when open from collision with passing vessels. The abutments and piers were built of Pennant stone, having string-courses, copings, and bed-stones of grey Cornish granite. The superstructure was of mild steel, with the exception of the longitudinal flooring girders, diagonal bracing between same, buckled flooring plates, and parapets which were of wrought-iron. The 12-in. channels, the diagonal ties, and the 10-in. links forming the flanges of the main girders were rolled by the Steel Company of Scotland, while the remainder of the steel was supplied by the Steel Company of Staffordshire. An interesting fact in connexion with the manufacture of the steel eye-bars forming the diagonal ties in the main girders was that the builders found it more convenient to have the heads forged on them in America, than to get the work done in this country, the bars being shipped direct from the rolling-mills in Glasgow to New York and back by way of Liverpool. The bridge is 40 ft. wide from centre to centre of parapets, and consists of a carriage-way, 24 ft. wide in the clear, and two footpaths supported on cantilevers on the outside of the main girders, each 8 ft. wide. The whole weight of the swinging span, upwards of 500 tons, rests entirely on the centre piers, not only when the bridge was swinging, but also when closed and ready to receive the road traffic. It was believed that this was the first swing-bridge constructed upon this principle in the United Kingdom, the usual method being to raise the ends of the span by cams, wedges, or other mechanical device, so as to bring the main girders into the condition of stress obtained in a continuous girder resting on three supports. The bridge was designed to carry the heavy traffic of the neighbourhood, such as a load of thirty tons on a four-wheeled trolly. The cost of the undertaking was £53,150*l.* Mr. Harpur then proceeded to describe the St. Mary-street Market Hall, which has been constructed at a cost of 17,061*l.*, and which was opened by the Marchioness of Bute on the 8th of May, 1891. As in other public matters Cardiff had not been behind in providing itself with the electric light. A provisional order was obtained by the Council in 1892, enabling them to provide the requisite buildings, machinery, and plant for the supply of electrical energy to any part of the borough. In the matter of electrical plant he was assisted by Mr. W. H. Massey, C.E., who acted throughout as consulting engineer, and to him must be given any credit due to the efficiency of the plant and machinery, and to the excellency of the whole system of electric lighting. The system adopted was a high-tension alternating current system, with rectified current for the street arc lamps. There were at present three boilers in position of the Economic Marine type, constructed for a working pressure of 160 lbs., and made by Messrs. D. Paxman & Co., of Colchester. Four engines and alternators had been erected to commence with—two vertical triple-expansion condensing-engines, each of 270 break horse-power, and running at a speed of 133 revolutions a minute, and two of the vertical compound condensing type, each of 65 break horse-power, running 200 revolutions a minute. The engines were by Messrs. D. Paxman & Company, and were supplied through Messrs. Siemens Bros. & Company. The condensing plant had been supplied by Messrs. J. Watt & Company, of Birmingham, and comprised a surface condenser having 1,000 lineal ft. of tube surface, and was fitted with duplex double-acting air-circulating pumps, capable of raising 25,000 gallons of water per hour to a height of 15 ft. Each of the four engines was coupled direct to one of Messrs. Siemens' alternators. The exciters for the alternators were coupled direct to an extension of the armature shafts, so that each direct coupled shaft comprised engine, alternator, and exciter. The whole of the high and low pressure street mains were laid in cast-iron pipes of the concentric type, made by the Indiarubber, Guttapercha, and Telegraph Works Company, Limited, of Silvertown, London. The current was brought from the station to the town by two high-pressure feed mains at 2,500 volts, and was there transformed by means of six transformers to 105 volts, at which pressure current was supplied to consumers. For the street arc lighting a high-tension-feed branch was taken into the basement of the Town Hall, and there transformed down to 600 volts by means of Ferrantis transformers and supplied to the street lamps through four-feed mains, each supplying twelve lamps. The lamps are supplied from alternate circuits, so that in case of a break-down in any arc main or in one of the motors every alternate lamp was kept burning, and was able to maintain a fair light in the streets. The whole undertaking in connexion with the electric lighting had cost about 32,000*l.*, and extensions were now in contemplation. The site of the sanatorium was about twelve acres in extent, including two acres now occupied by the temporary structure, and was situated on the Canton Moors, near the western boundary of the Boro'. The buildings were eight in number—the administrative block, two main ward blocks, isolation block, laundry block, stable, disinfecting-house, and mortuary. The wards were erected on the pavilion principle. There were two large wards in each main block, one for males the other for females, each being 60 ft. by 26 ft., and two small wards for special cases, each 12 ft. by 12 ft., and 14 ft. high, the total number of beds thus provided being forty-four. Between the wards in each block there was a nurses' kitchen and duty-room, with inspection-window looking into each ward, so that the nurse has perfect control over the ward from her duty-room. In connexion with the main wards there was a waiting-room and also a bath-room, with two dressing-rooms for discharging patients, which would enable each patient, on being discharged, to leave the building direct from the bath-room. The isolation block was divided into two equal parts by a wall, and the arrangements on one side of the wall were in exact counterpart to the arrangements on the other. Each of the larger isolation wards was 23 ft. by 15 ft., and of the smaller wards 14 ft. by 14 ft., all 12 ft. high, providing accommodation for six beds. The windows, which form the chief means of ventilation to all the wards were divided into two parts by a transom rail about 1 ft. 6 in. down from the head of the frame. In addition to the ventilation provided by the windows hit-and-miss ventilating grids were fixed immediately above the floor level, and Tobin's inlet-tubes about 6 ft. high. Ventilating trunks were fixed in the ceilings, connected to Shorlands's extract ventilators on the ridge, for carrying off the vitiated air. Owing to the exceptionally low situation of the site the whole of the floors had been kept 6 ft. above the ground level, and the floors and main walls of the wards were carried on piers and arches, so that there was a through current of air under the floors which would not be liable to be affected by damp. The floors of the wards were constructed of cement concrete, carried on steel joists and finished with oak blocks. The whole of the wards were connected with the administrative block by means of covered corridors. The disinfecting house had two compartments, the one for infected clothing and the other for disinfected articles, and in the walls was built one of Washington Lyons' largest sized patent steam disinfectors. The mortuary was placed at the

extreme south-east end of the site, and contained post-mortem room and pathological room. The buildings were plain in design, faced with Ruabon buff bricks above the plinth level, relieved by red bands and Forest of Dean stone dressings. Space was reserved on the present site for five more main ward blocks and one isolation block, which would provide accommodation for 116 additional patients. The contractors were Messrs. Turner & Sons, of Cardiff, and the cost of the buildings and furnishing would amount to about 37,000*l.*, exclusive of the cost of the land. The Bute-street Police-station was designed to meet the requirements of a very populous district in the neighbourhood of the docks. The building consisted of three stories, and comprised, on the ground floor, the police administrative department, six cells accommodating twelve prisoners, fire-engine shed, mortuary, and dogs'-home; and the upper floors consist of a private residence for the sergeant in charge, and quarters for the accommodation of eight single constables. Special attention had been given to the warming, ventilating, and sanitary arrangements. The whole of the work was being carried out by Messrs. W. Thomas & Co., at a contract price of 4,775*l.* The Guildford Crescent bath formed a portion of a proposed scheme for providing the inhabitants of the borough with a complete suite of public baths, consisting of a central establishment, where the swimming-bath would be the chief feature, and a number of subsidiary baths, one in each of the outlying districts of the town, where, together with the provision of a small swimming-bath, there would be an installation of private baths for ablutionary purposes. The establishment consisted of a first-class men's bath in direct communication with the Turkish bath, a second-class men's bath, and a ladies' bath, together with the necessary appointment of ticket-office, attendants' rooms, towel, laundry, engine, and boiler houses, &c. One of the principal features of the bath was the arrangement which had been patented of warm lavatories having dual dressing-rooms in lieu of the ordinary slipper baths, these lavatories being combined with the swimming-bath in such a manner that the bather having performed his ablutions and vacated the washing-bath, could still retain the use of his dressing-room if he still desired to enjoy the luxury of a swim. The heating of the bath-water was carried out on the Rosher system, which provides for the constant circulation and aëration of the water, the temperature of which was maintained at 70 deg. The contractors for the work were Messrs. Symonds & Co., of Cardiff, at a total cost of 12,360*l.* Roath Park is of very recent construction. Until six years ago the valley in which the Park lies consisted of rough pasture and bog land, through which there was not even an occupation road or public foot-path, and the marvellous change which had taken place in so short a time was almost inconceivable. The total area of the Park, including the outer roads, was 120 acres. The greater portion of the land was presented to the town by the Marquess of Bute, while smaller portions which intervened and were requisite to complete the scheme were readily given by Lord Tredegar and by Messrs. Clark & Jackson. The ceremony of cutting the first sod was performed by the Marchioness of Bute on August 24, 1887, and was opened to the public on June 20 last by the young Earl of Dumfries, heir to the Marquess of Bute. The land upon which the Park had been formed was situate in the bottom of a valley through which runs a beautifully pellucid and winding brook, providing a splendid supply of water for the lake. The brook inside the fences of the park was spanned by five iron footbridges and by a rustic bridge in the pleasure-garden portion of the Park. The Park was divided into six sections—(1) the recreation-ground comprising an area of 23 acres; (2) the pleasure-gardens of 11 acres; (3) the botanical gardens, 15 acres; (4) the lake section, 41 acres; (5) the wild fowl garden, now in course of being laid out, 8 acres; (6) the oval, yet to be formed and laid out, 2 acres. The remainder of the area, making up the 120 acres, is taken up by the roads encircling the Park, and which consist of 3¾ miles of road, 40 ft. wide and half a mile of roads 30 ft. wide. In making the excavation for forming the roadway encircling the Park a very fine section of the Silurian stratification was cut through, and said by geologists of repute to be the finest exposed section in Great Britain. One of the chief features of the Park is the lake, half a mile in length, and with a water-surface of 32 acres. The total expenditure on the Park, up to the present, had been 50,410*l.*, and when completed was estimated to cost 55,000*l.* In addition to Roath Park, the Corporation had acquired the Ely Common, where they were now laying out a park 25 acres in extent, and another similar park on Canton Common having an area of 22 acres. They had also, during the past five or six years, acquired fourteen open spaces, varying in area from half an acre to 3 acres each.

Mr. R. Godfrey, of King's Norton, proposed a vote of thanks to Mr. Harpur for his paper.

Mr. A. T. Davis, of Shrewsbury, seconded, and the President (Mr. Fowler) supported the vote of thanks, which was adopted, and acknowledged by Mr. Harpur.

Mr. J. T. Eayrs (West Bromwich) proposed a vote of thanks to the Mayor and Corporation of Cardiff, which was seconded by Mr. Hall, Cheltenham, and adopted.

The members attending the meeting were then entertained to luncheon in the Assembly-room of the Town Hall by the Mayor of Cardiff, who presided, and was supported by most of the members of the Corporation. He proposed the toast of the President and members of the Incorporated Association of Municipal Engineers, and offered the Association a hearty and generous welcome.

The toast having been honoured, the President responded, and then proposed the Mayor and Corporation of Cardiff, a toast which was very heartily honoured.

In the afternoon, the members attending the meeting visited Cardiff Castle, the residence of the Marquis of Bute, the docks (for which visit a special train was provided by Sir Wm. Thos. Lewis), the sanatorium, the electric light station, and Roath Park.

## THE LONDON COUNTY COUNCIL.

THE usual weekly meeting of the London County Council was held on Tuesday, at the County Hall, Spring Gardens, Mr. Arthur Arnold, Chairman, presiding.

*The Works Committee and the Cost of Work.*—The adjourned report of the Works Committee was then considered. The recommendation of the committee was to the effect that in cases where the actual cost of the works had exceeded the estimates the amounts expended be approved. Several additions were made to this recommendation at the meeting last week, and the following amended motion was now before the Council:—

"That in the cases in which the actual cost of the above works has exceeded the original or amended estimates the amount expended in connexion with the works be approved; and that the Works Committee be instructed to prepare and bring up a report to the Council making suggestions for preventing estimates being exceeded in future, and do also report forthwith the particulars of the jobbing works done during the existence of the Committee, together with the values placed upon such works by the officer under whose orders and directions such jobbing works have been carried out. That the Council, having considered the report by the architect on the statements affecting his department contained in the report of the Manager of Works, finds no reason for attributing to the architect or his department any responsibility for the increased cost of the buildings erected in Yabsley-street and Blackwall-lane."

The Council at once proceeded to divide on the motion as amended, when there voted for the motion, 52; against, 56.

Mr. Boulnois asked what would be the result of the vote.

The Chairman said that the whole of the original resolution, together with the added matter, disappeared, and it would be for the Committee to reconsider their position in view of the fact.

At a later stage of the proceedings, a report of the Public Health and Housing Committee, with reference to the dwellings to be erected on the Boundary-street area, was considered and discussed at considerable length. The Committee reported as follows:—

"We submit the working drawings, specification, and estimate with respect to the superstructure of the block of dwellings proposed to be erected on the Boundary-street area, facing Shoreditch churchyard, and comprised within Section B of the area. The amount of the estimate is 9,100*l.* We have submitted a statement to the Finance Committee giving the probable receipts and outgoings in connexion with the dwellings, which shows that the Council's resolution of March 21, 1893, requiring a return of 3 per cent. on building operations of this nature, will be met, and an annual balance obtained of 68*l.* 14s. 10d. The Finance Committee will submit their report concurrently with our report. The foundations of the dwellings are now being put in by the Works Department, and we recommend:—

'That, subject to an estimate to be submitted to the Council by the Finance Committee as required by the statute, the work of erecting the superstructure of the block of dwellings facing Shoreditch churchyard, and comprised in Section B of the Boundary-street area, be executed by the Council without the intervention of a contractor, and that the plans, specification, and estimate be referred to the Works Committee for that purpose.'"

Mr. Beachcroft moved that all words after the second word "Council" be omitted, and that the following be substituted—"and that tenders be invited by public advertisement."

Mr. Beresford Hope seconded the amendment.

Mr. Ward, Chairman of the Works Committee, hoped the Council would not accept the amendment, because the Works Department had already put in the foundations of the buildings.

Mr. White, Vice-Chairman of the same Committee, said he hoped that the Council would stay its hand, bearing in mind the losses that had already occurred.

Sir Horace Farquhar said that the Works Department ought not to have more work to carry out, unless contractors were allowed to compete.

Other councillors having joined in the debate, upon a division there voted, for the amendment, 55; against, 65.

The recommendation of the Committee was then agreed to.

*Tower Bridge* (*Southern Approach*) *Bill.*—The Parliamentary Committee reported that they had considered the clause in the Tower Bridge (Southern Approach) Bill, which dealt with the improvement charge on property increased in value by the improvement, with the object of arriving at a compromise which should reconcile conflicting views. They had resolved unanimously to adopt, with that object in view, a modification of the "betterment" clause in the Manchester Corporation Act. Their proposal was that "worsement" should be confined to the same area as "betterment," that the right of purchase should be exercised by the owner within three months of the publication of the Council's assessment, and before these expenses had been incurred, and that the provisions for hearing by a jury should be abolished.

The Council adopted this compromise and approved of the action of the Committee in requesting Councillors who are Members of Parliament to take steps for the carrying out of the compromise by the Select Committee of the House of Commons.

*London Building Act*, 1894.—The report of the Parliamentary Committee contained the following paragraph, the recommendation being agreed to:—

"In connexion with a Bill called the Metropolitan Police Provisional Order Confirmation Bill, which is now before Parliament, for the acquisition of certain property for the purpose of enlarging and improving the Tottenham Court-road Police-station, our attention has been directed to the 202nd Section of the London Building Act, 1894, which exempts from the operation of the Act 'any building, structure, or work, vested in and in the occupation of any department of Her Majesty's Government or of the Metropolitan Police.' We are strongly of opinion that public buildings generally should be made to comply with the requirements of the Act as to lines of frontage, as well as with the general requirements of the law as regards drains and sanitary conditions, in the same way as buildings the property of private owners, and we think that a representation should be made to the Government on the subject, pointing out how extremely desirable it is that these requirements should be observed in the erection of exempted buildings. We therefore recommend—

'That a representation be made to the Government to the above effect.'"

*The Unification of London.*—Mr. T. McKinnon Wood moved the following resolution in reference to the unification of London:—

"That the Council do represent to Her Majesty's Government the urgent importance of introducing in the present session of Parliament a Bill providing, on the general lines of the report of the recent Royal Commission, both for the amalgamation of the City and County of London, and for the creation of local councils, beginning with those areas which are already suitable as regards size and population."

Mr. Torrance seconded.

Alderman Ritchie moved as an amendment:—

"That the institution in the place of the present Council of a single Municipality embracing the whole of London would entail grave interference with the independence of local authorities, and not conduce to efficient administration, and that in the opinion of the Council the interests of good government in London will be best served by strengthening local authorities, and by transferring to them

such of the powers now possessed by the Council as can be properly exercised by them, and at the same time by considering in conference with the Corporation of the City of London whether certain of the powers now possessed by them should be entrusted to the Council."

Lord Onslow having seconded, the debate was adjourned.

## *COMPETITIONS.*

LADIES' COLLEGE, HIGH BARNET.—In the open competition for a ladies' college at High Barnet, the designs submitted by Mr. George Baines, F.R.I.B.A., 4, Great Winchester-street, London, E.C., have been selected, and he has been instructed to obtain tenders forthwith. Accommodation is provided for seventy resident pupils, with dining-hall and Principal's house.

CHURCH, SOUTHPORT.—Plans for the erection of a new church in Cambridge-road, Southport, have just been accepted. Seventeen designs were submitted by local and other architects, and those sent in by Messrs. Preston & Vaughan, of Manchester, have been selected.

DURHAM SEWAGE SCHEME COMPETITION.—At a special meeting of the Durham City Council, held on the 8th inst., to finally select one of the many schemes submitted to them for sewering the city, and the construction of sewage purification outfall works, the first premium was awarded to Messrs. Lomax & Lomax, A.M.I.C.E., Grosvenor Chambers, Deansgate, Manchester, Mr. D. Balfour, M.I.C.E., being awarded the second premium. The scheme submitted by Messrs. Lomax & Lomax is that known as "The International," being the chemical precipitation in tanks and filtration through polarite beds.

## *ARCHITECTURAL SOCIETIES.*

EDINBURGH ARCHITECTURAL ASSOCIATION.—The fortnightly visit of this Association, on the 11th inst., was to Paisley, the attractions being the ancient Abbey and the Coats Memorial Church, of which Mr. Hippolyte J. Blanc, A.R.S.A., was the architect. On arrival at Paisley Abbey, the company were received by Rev. Dr. Gentles, and conducted to the interior of the Abbey, where Mr. Blanc read a paper, in which he described the foundation of the original establishment, its development till it became one of the richest in Scotland, having derived revenues from twenty-eight churches, and the various historical associations in which Royal personages figured. It was largely destroyed by fire in 1307, and the existing remains were chiefly of the fourteenth and fifteenth centuries. Mr. Blanc pointed to its architectural features, and indicated the character of the complete building before the choir and transepts came to ruin. Dr. Gentles gave additional information as to tablets, &c., and at the conclusion of the visit he was thanked for his courtesy. The party thereafter proceeded to the Thomas Coats Memorial Church, where Mr. Blanc explained the architectural features of the structure, which has been illustrated in our pages. Mr. Bruce moved a vote of thanks to Mr. Blanc for his services that day, and pointed out that one outstanding characteristic of his work had been thoroughness. Mr. Blanc replied, and the party proceeded on their return journey.

## *ARCHÆOLOGICAL SOCIETIES.*

SOCIETY OF ANTIQUARIES OF SCOTLAND.—The last monthly meeting of this Society for the present session was held in the Museum, Queen-street, Edinburgh, on the 13th inst., Mr. Thomas G. Law, of the Signet Library, in the chair. In the first paper, continuing his examination of the so-called Roman roads of the ordnance maps, Dr. James Macdonald, one of the vice-presidents of the Society, gave an account of the results of his examination of the roads in Roxburghshire, attributed to the Romans, and marked as Roman on these maps. They were two in number, the one also being known as Watling-street, and the other as the Wheel Causeway. He gave a description of the Watling-street from the English Border to the spot near St. Boswells, where it is lost in the Melrose and Ancrum-road. As regards its history and origin, he was of opinion that certain facts pointed to its having in all probability followed the route generally taken by the legionaries when marching into North Britain, and to part of its course at least having been laid down by the Romans. In the case of the Wheel Causeway, however, which enters Scotland near the sources of the Liddell water, he could discover no evidence that the Romans had had anything to do with its formation. It had been a drove road, and nothing more. In the second paper, Dr. Joseph Anderson described the contents of a very extensive refuse-heap accumulated at the base of an isolated stack of rock at Gallanach, near Oban, which seems to have been occupied as a prehistoric fort, and is known in the locality as Dun Fheurain. The pottery discovered was of two varieties—one a coarse, bowl-shaped vessel not unlike the pottery of the Brochs, and the other a small fragment of the red lustrous ware commonly called Samian, and associated with the Romano-British period. Mr. F. R. Coles described the stone circles of the stewartry of Kirkcudbright, which he considered to have been in most instances the base-stones of cairns. In the next paper, Mr. James Curle, jun., the Society's librarian, described three early iron age brooches from the island of Gotland, Sweden. In the last paper, Rev. James Morrison, Urquhart, a corresponding member of the Society, contributed a notice of a sculptured stone of the early Celtic type recently discovered at Easterton of Roseisle, near Burghead. The Society then adjourned to St. Andrew's Day, November 30 next.

# Correspondence.

*To the Editor of* THE BUILDER.

## ARCHITECTURAL ASSOCIATION SKETCH BOOK.

SIR,—Will you kindly allow me to make it known to your readers that I, as Secretary of the Sketch Book, have a few back volumes of the *New Series* still on hand, which I shall be glad to dispose of for the following reasons, *i.e.*—Having completed the New Series, it is necessary to close the accounts, and in order to meet the last of our liabilities we desire to realise the only asset we have, viz., some twenty copies in all of the last three or four volumes. I am glad to say that during the whole of the thirteen years over which the New Series has spread itself, we have always paid our way, but we cut matters so fine that in order to settle our accounts we must sell the whole of the volumes printed.

I think it is generally admitted that the volumes of the Sketch Book are about the best value for the money that can be obtained anywhere. I therefore trust than when it is known that the sale of the last few copies of the series will enable the committee to send a final cheque to the printer there are many who will feel disposed to lend a helping hand.

LEONARD STOKES.

3, *Prince's-street, Westminster, S.W.*

## BUILDINGS AT BOURNEMOUTH.

SIR,—With reference to the leading article last week in the *Builder*, and apropos of Mr. Wilson's design for St. Andrew, Boscombe, may I make a few remarks? You say that "Bournemouth has been up to the present time at about the lowest architectural level of any town we know of. As far as we can recollect, except Street's church, there is not a decent building, architecturally speaking, in the place." Now, granted that the ordinary run of domestic buildings are, in the majority of cases, thanks to the wretched speculative building system, examples of builders' jerry-building, with a superabundance of would-be artistic external ornamentation thrown in, which, unfortunately, seems to fascinate the eye of the retired shopkeeper from the Midlands, if no one else; at the same time, we cannot afford to have our churches, some of which we are justly proud of, passed over so slightingly.

The names of the architects will be sufficient to correct this error.

1. Mr. Pearson's St. Stephen's, with its exquisite stone-groined roof and noble west window, a real gem of beauty, still uncompleted.
2. Street's St. Peter's, a fine church, but not to be compared with the last named.
3. St. John's, Moordown, Sir G. Scott.
4. St. Clement's, Boscombe, the late J. D. Sedding, with new tower, finished last year from designs executed before his death.
5. St. Michael's, Mr. Norman Shaw.
6. St. Swithin's, the same.
7. Holy Trinity, Mr. A. F. Parken, in Romanesque style, built of brick, with lofty campanile.
8. St. John's, Boscombe (now building), Mr. Oldrid Scott.

G. A. BLIGH LIVESEY.

May 8, 1895.

*** Some of the churches referred to have apparently been built since our last aquaintance with Bournemouth. In that case we admit that we should not have said "up to the present time." We are glad to find the land is somewhat less barren in this respect than we had supposed.—ED.

## THE "ESSEX REVIEW."

SIR,—In your notice of my Paper on St. Nicholas Church, Chignal Smealey, you say: "It would add to the interest of these articles if a general perspective sketch, or a reproduction from a photograph of each church, were given with the article." If you will again refer to the last number of the *Essex Review*, and to all previous numbers, you will find I have given a perspective view of every church, but as the printer generally binds the view up at the commencement of each number you may have overlooked it.

FRED. CHANCELLOR.

## CO-OPERATION IN ARCHITECTURAL PHOTOGRAPHY.

SIR,—In the hope that there may be some readers of your paper who are interested in this subject, I would venture to ask you to give publicity to the fact that I am forming a club for *systematic* photographic work in English Church Architecture.

Without going into details I might say that it is proposed to limit the number of the members to twelve, with a circulation of *lantern slides* (not prints) every other month, illustrating some set subject—*e.g.*, Norman capital, E.E. piscinæ, geometrical tracery, &c., &c., no member to send in more than six slides at a time, with the privilege of copying any slide sent in, thus affording a very valuable opportunity of constantly increasing one's collection of examples.

If anybody would desire to join this club, and is at the same time a reasonably good worker in photography, I would ask him to communicate with

"CHALKOS," 100, *High-street, Eton.*

May 11, 1895.

# The Student's Column.

## BRICKS AND TERRA-COTTA.—XX.

STRENGTH (*continued*).

IN the year 1848 several experiments were carried out at the Regent's Canal Iron Works as to the strength of bricks set in cement, the results of which have not received the attention they deserve. The materials used were practically of the same character as those made at the present day, and we may give the following summary relating thereto:—

The blocks of brickwork were of uniform size, 18 in. long × 9 in. × 9 in. Pressure was exerted on the ends; the power of the press was 75 tons.

1. A block of London stock-bricks, set as a 9-in. pier, with neat Portland cement, thirty days old. Result, the bricks crushed at 15 tons, and the whole broke down at 16 tons. This is equivalent to, at 15 tons, 470 lb. per square inch, or 18·75 tons per square foot. Cement not quite gone.

2. A block of London stock-bricks, set as a 9-in. pier, with Portland cement 1 part, sand 3 parts, thirty days old. Result, no effect until a pressure of 26½ tons was put upon it, when it cracked, and crushed suddenly in the direction of its length. The bricks gave way first, the cement apparently not being much affected. Equivalent to 726 lbs. per square inch, or 33·125 tons per square foot.

3. Brick pier of same kind as No. 2, but set with neat Roman cement, thirty days old. This broke up suddenly at a pressure of 30 tons, no defect having previously been noticed. Equivalent to 829 lbs. per square inch, or 37·50 tons per square foot.

4. Block of London stock-bricks, set as a 9-inch pier, with Portland cement, 1 part, sand 2 parts; 52 days old. Result, at 16·875 tons it cracked, and 22·5 tons crushed. Equivalent, at 22½ tons to 608 lbs. per square inch, or 39·5 tons per square foot.

5. Block as in No. 4, set with Roman cement 1 part, sand 2 parts; 52 days old. Result, owing to a bad brick having been employed it commenced to break up at 5·625 tons, but was not finally crushed until a pressure of 14·062 tons was exerted. Equivalent, at 14½ tons, to 386 lbs. per square inch, or 25·7 tons per square foot.

Examining these five experiments, we notice that the greatest resistance was 30 tons, and the average resistance 22 tons—thus giving about 600 lbs. per square inch, or 38 tons per square foot, as the strength of brickwork in cement. Owing to the bricks giving way before the cement in each case, and from the general aspect of the results, we imagine that the London stocks used were not of very good quality.

Shortly afterwards another series of experiments of a rather unique nature and of considerable use were made by Messrs. Robins, Aspdin, & Co., from which we select the following. The tests were divided into two groups; in both,

London stock-bricks were employed, only, that in the first group to be mentioned they were of rather better quality than in the second.

*Series I.*—In this the bricks were in each case attached by a broad side (flat) to a wall, and to each other, with cement, and mixtures of sand and cement, and had stood twenty-seven days with proper supports.

1. Cement: 14 bricks. A heavy weight (about 9 cwt.), was placed on the seventh brick. Result, the substance of the third brick gave way in a few minutes with a small additional weight.

2. One part cement to 1 of sand; 30 bricks: 8 lbs. weight was placed on the last brick and 7 lbs. more gradually added when that brick gave way in three places.

3. One part cement to 2 of sand; 22 bricks withstood 3½ cwt. on the 22nd brick, when both bricks and cement gave way.

4. One part cement to 4 of sand; 25 bricks, weight placed on the last brick; it gave way under ½ cwt. pressure, some of the bricks breaking.

5. One part cement to 5 of sand; 26 bricks, weights placed on the last brick until a brick broke under 74 lbs.

6. The last experiment of this series differed from the others in that the structure stood for twenty-eight days, whilst it was borne at each end, the weights being attached between; the span or bearing was 2 ft. 6 in. Cement was composed of 1 part cement to 1 of sand. The bricks broke under a weight of about 15 cwt.

*Series II.*—As in the previous series of experiments, many of the bricks gave way before the cement. They were built in bars of 5 ft. span laid horizontally, three bricks in breadth and three in thickness, with supports at each end built on sand, and about two lengths of brick in thickness from the outer edge to the inner span. The whole stood for a month before being dealt with.

1. Cement; the bricks broke across in two places under a pressure of 2 tons 18 cwt.

2. One part cement to 5 of sand; under a load of 31 cwt. a brick was broken and the cement yielded.

3. One part of Roman cement to 1 of sand; under a load of 29 cwt. a brick was broken and the cement yielded in three places.

4. One part cement to 3 of sand; under a load of 47 cwt. the bar split partially in two places, and shortly afterwards gave way.

5. One part Roman cement to 2 of sand; under a load of 21 cwt. the bar gave way in the cement.

6. One part cement to 6 of sand; under a load of 24 cwt. 6 bricks out of 9 were broken. This poor result was said to be partially due to an accident the bar had sustained previously.

The following results are derived from tests made at the Great Exhibition of 1851:—

1. Sixteen stock-bricks attached to each other with neat cement, supported at one end, and projecting from the bearing point 3 ft. 2⅔ in., broke in the 11th brick with a weight of 256 lbs. suspended on the extreme end.

2. Twenty stock-bricks, united side by side with cement, composed of 1 part cement to 1 of sand, 3 ft. 6½ in. in bearing, were supported at each end by iron clamps; the weights being applied to the centre, the bricks broke with the application of a weight of 1,200 lbs.

3. Six fire-bricks, in courses, cemented together with cement only, were suspended, and weights were applied to pull them apart; a brick in the upper portion broke under a weight of 2,836 lbs.

4. The five remaining fire-bricks from the last trial were again tested, iron being inserted in the second brick from each end; the bricks broke with a weight of 4,600 lbs.

It may be objected that the above recorded experiments referred more particularly to the strength of the cement used, which was undoubtedly the case, up to a certain point. But they bring out many facts of interest also in respect of the strength, &c., of common house bricks under peculiar circumstances. The cement, no doubt, was of much better quality than the mortar used in the average London building, and the results teach us that the adhesive power of good cement is, like the cement itself, stronger than that of the materials constituting common bricks. Not the least remarkable feature in these tests was the diverse character of the strains and stresses brought to bear on the bricks. There can be no question that by experimenting on the "crushing strengths" of bricks and brickwork, *i.e.*, submitting them to a compressive force, or thrusting stress, as is done in practically all cases at the present day, we see the bricks at their best. That is but very little index of their behaviour in the walls of ordinary buildings; some, it is true, are merely compressed, but they are compressed in a more or less confined space in walls, not as between the dies of a machine; others may be pulled, thrust locally, alternately expanded and contracted, and are subjected to varying forces, especially in tall edifices and chimneys, owing to wind pressure acting laterally. We want more experiments of recent date dealing with the material under these various heads. It would be found, we venture to predict, that the "crushing strengths" so widely scattered abroad, are far in excess of the real strength of the bricks under the varying conditions mentioned; and we should not be surprised if such bricks as are built in edifices subject to much vibration, either from the motion of machinery or from wind pressure, were found to be completely modified by "fatigue" and rendered weak.

*Strength of Terra-Cotta.*

As we have previously remarked, experiments to ascertain the strength of terra-cotta have been few in number. This is due to a certain extent to the divers manners in which the material is used, and to the ever-varying thickness of the "walls" of the finished product, circumstances which make it impossible to arrive at more precise information concerning its strength than could be estimated by a rough-and-ready method. The strength of a building block of terra-cotta is frequently that of the concrete core within; in other words, if through any cause the shell of the block is cracked, the flaw is not of much moment from the constructional point of view unless the core gives way also, which, in most instances, is a very unlikely occurrence. Well-made, thick-shelled terra-cotta, is probably as strong as the best bricks.

Experiments made at South Kensington about the year 1868, and described by Mr. Redgrave, showed that a weight of 20½ tons had been sustained by a column of terra-cotta under somewhat adverse conditions, and from that and other circumstances it was believed that a column, 15 ft. in height and 1 ft. 6 in. in diameter, would carry a weight of 25 tons with greater and more permanent safety than a cast-iron column or core, 8 in. in diameter and 1 in. in thickness.

In a paper read by Mr. Charles Barry before the Institute on June 22, 1868, some particulars were given as to the comparative strength of building stone and terra-cotta, including the results of several tests made with reference to the latter. We quote them as much to show the way in which statistics compiled to prove a certain point are got together, as for the value of the original experiments. Mr. Barry states: "The following table will show the results (of the tests) and will, I am sure, convince architects that we have here a very trustworthy material":—

*Comparative Strength of Terra-cotta and Stone.*

| | tons. |
|---|---|
| Portland stone stood a crushing strain of... | 283 |
| Bath ,, ,, ,, ,, ... | 88 |
| Terra-cotta block of similar size ..... | 442 |
| Good hard stock brick 9 in. × 4½ in. × 3 in. | 17 |
| Terra-cotta block of nearly the same size, or 12 in. × 4 in. × 3 in. ..... | 125 |

From what follows it will be seen that much care was bestowed on the terra-cotta tests, but in comparing these with the strength of brick and stone, as given, it is not fair to take the strength of Bath stone at 88 tons as against Portland stone at 283 tons; the ratios are very different in dealing with average samples of these two stones, though we admit that, exceptionally, such results have been arrived at. Neither is it quite fair to compare the best description of terra-cotta with one of the worst kinds of brick, as is done in the tests alluded to.

Experiments were made with differently-shaped pieces of terra-cotta, some of them solid, some hollow, but left empty, and some with the hollow blocks filled in with brick and Roman cement. The results showed that the filling in doubled the strength of the hollow blocks, as the one showed signs of cracking with a strain of 42 tons per square foot, and the other required 86 tons to produce that effect. In these two experiments it should be mentioned that the terra-cotta was 1½ in. thick only, whilst the thickness of that commonly used in practice was about 2 in., so that the figures would be considerably increased with the ordinary material. The reason for the experiments being carried out on the thinner description of terra-cotta, instead of on the material as commonly in use at that time, is not apparent.

An experiment showed that a solid 12 in. cube of terra-cotta did not crack until a crushing strain of 442 tons to the square foot was applied; and to crush a hexagon stable-floor brick 4 in. diameter and 2½ in. in thickness, required 855 tons. This terra-cotta was composed of a mixture of clays from Cornwall, Devon, Dorset, and Northamptonshire, blended and mixed with ground-glass, felspar, Lynn-sand, and pulverised terra-cotta fragments. The pieces experimented upon, which were hollow, were filled with Roman cement twenty-seven days before the trial; with a longer time the cement would, of course, become harder, and a greater pressure realised.

In the more recent researches of Professor Unwin, that authority found* the strength of terra-cotta to be as follows:—

| | Dimensions. | Crushed at tons per square foot. |
|---|---|---|
| Terra-cotta block..... | 6 square in. | 168 |
| ,, ,, ,, ..... | 15 ,, | 139 |
| ,, ,, ,, ..... | 15 ,, | 267 |
| ,, ,, ,, ..... | 6 ,, | 104 |

It is to be regretted that the precise nature of the blocks used in the last-mentioned tests was not described.

## *OBITUARY.*

MR. JAMES PIERS ST. AUBYN.—We much regret to have to record the death of this well-known and much-respected member of the architectural profession, which took place on the 7th inst., at Chyau-Eglos, Marazion, Cornwall, where he had lived for some time past. Mr. Piers St. Aubyn was born on April 6, 1815, at Powick Vicarage, Worcestershire, and had, therefore, attained his eighty-first year. He began his architectural studies as a pupil with the late Mr. Fulljames, of Gloucester. He started in practice for himself at an early age in London and Devonport, being appointed Surveyor to the Manor of Stoke Damerel. Among his early works are St. Paul's Church, St. James's Church, St. Mary's Church, St. Stephen's Church, the Market, and the Prison, all at Devonport. He held the appointment for over thirty years as Surveyor to the Honourable Society of the Middle Temple, and was for many years one of the Committee of Architects for the Incorporated Church Building Society. He was elected an Associate of the Royal Institute of British Architects in 1837, and a Fellow in 1856. Among his other new churches may be mentioned All Saints', Clifton; Christ Church, Erith; St. Mary, Widford; St. Michael, Gallywood Common; All Saints', Reading; St. James the Less, Plymouth; St. Luke, Reading; St. Mark, New Brompton; St. Peter, Revelstoke; All Saints', Dresden; All Saints', Marazion; St. John, Penzance; and many mission chapels and school chapels in Cornwall and elsewhere. His works of church restoration were numerous and in various parts of England, among which are St. Helen, Ashby-de-la-Zouch; Soham, near Ely; St. Gregory, Beckington; St. Helen, Cliffe; Holy Trinity, Charing; Downham and St. James, Streatham, near Ely; St. Michael, Woolverstone. In Cornwall many of the churches were restored by him, which include, among others, St. Breage, Perran Uthnoe, Perran Arworthal, Lelant, St. Germans, Lezant, St. Columb Major, St. Keyne, St. Feock. Among his other works are several schools, parsonage-houses and mansions scattered about in various parts, and include the additions to the Castle, St. Michael's Mount, for Lord St. Levan; to Mersham-le-Hatch, for Sir Wyndham Knatchbull; to Rousham, for Mr. Cottrell Dormer; to Birch Grove, for Mr. W. M. Praed; to Abberley Hall, for Mr. J. J. Jones; and new mansions at Delamore, Coombe Wood, Muntham, Ockley Court, Anstie House, and Pencalinick House, Cornwall; Brick Court, Garden Court, and Elm Court, for the Temple, and a clock and carillon tower at Abberley. He was buried in the little cemetery at St. Michael's Mount, on the 11th inst., the bier being carried from All Saints' Church, Marazion, over the causeway to the cemetery by eight masons and eight carpenters, in accordance with his wishes.

## *GENERAL BUILDING NEWS.*

RESIDENTIAL FLATS, WELLINGTON COURT, KNIGHTSBRIDGE.—Another of the great blocks of residential flats, which have been springing up of late years and transforming the residential portions of London, has just been completed. We refer to Wellington Court, Knightsbridge, of which Mr. M. E. Collins is the architect. The building occupies a prominent position, facing the main road on one side, and Hyde Park on the other. It is arranged round an internal courtyard, laid out in the French manner and tastefully supplied with hanging plants, and a central fountain is ultimately to be provided. The principal novelties which we need point out in the planning and construction lie in the fact that many of the suites are arranged in two floors, but self-contained, the servants' accommodation being placed in mezzanines, thus remedying a defect found in many flats, viz., the

* "The Testing of Materials of Construction," 1888, p. 438.

want of servants' accommodation. Billiard-rooms, with lavatory accommodation attached, are also planned with certain suites. These average from eight to eleven rooms, and vary in price from 150*l.* to 950*l.* The tradesmen's entrance is kept distinct, being placed in Park-place, which runs along one side of the building. Internally, the whole construction is in steel, and so arranged that the division walls can be removed in any manner to suit individual tastes. The finishings show an advance on buildings of this class. The modelled plaster ceilings in the reception-rooms are by Messrs. Jackson, of Rathbone-place, and exhibit careful workmanship and design. The electric lighting, by Mr. Adrian Collins, has wiring for 3,000 lights, and the system of switches and indicators has been carefully looked after. Bolding's syphonic closets have been used throughout the building. The lifts have been executed by Messrs. R. Waygood & Co., Limited, and there are one or two features connected with them which are of interest. They are made on the patent water-saving principle, which is automatic, and not dependent on the attendant in charge. It is constructed with three powers, so that if a light load is being raised the first one is used; for a medium load the second comes into play; and if a still higher load, the full power is employed. Thus, by a simple mechanism, the consumer's water bill is materially reduced. Another feature is the safety apparatus. The lifts are suspended by four steel-wire ropes, the failure of any one causing the cams or grippers to be pulled into action by the remaining sound ropes; there is also a fifth rope of lighter make, which runs idle, and whose only duty is to pull the cams into action in the event, perhaps impossible, of all the four lifting ropes breaking simultaneously, without first having brought the safety apparatus into action. The apparatus was tested on Tuesday by severing one of the ropes near its anchorage, the lift being in motion, when the lift-cage was instantly stopped by the cams gripping the timbers at the back of the guides erected for that purpose. The buildings have been finished externally with red Mansfield stone and Fareham red bricks, Lascelles patent stone being used in the courtyard and Park front. The iron gates and balconies are by Messrs. W. T. Allen & Co., and the general contractors are Messrs. Lovatt, of Wolverhampton.

CONSECRATION OF THE PARISH CHURCH, DENBIGH.—The Bishop of St. Asaph has just consecrated St. David's Church, Denbigh, which has been rebuilt and enlarged from plans prepared by Mr. R. Lloyd Williams, architect and county surveyor. The church has an entrance from the west tower into the nave, which is 74 ft. long and 33 ft. 6 in. wide. The aisles are divided from the nave by three arches on each side, above which are clearstory windows, and the north and south transepts are divided off by large arches rising nearly to the level of the nave roof. The chancel is 21 ft. wide and 39 ft. long, internally, the chancel arch being the full width of chancel. Smaller arches on either side open from the nave to a vestry on the north side and the organ-chamber on the south, and there is a larger arch opening from each to the chancel. On the north side there is a porch with doors opening into transepts and vestry. The altar is raised seven steps above the floor of nave. There are small lancet windows in the aisles, and larger ones at the west end of the nave; large three-light lancets in each transept, and the organ-chamber and vestry are lighted by single lancet windows. The east window is also a three-light lancet window, and is so arranged that the painted glass from the old east window could be re-used with very little alteration. The glass in the traceried portion of the old window is used up, and the single lancet windows which are placed on the north and south sides of the sanctuary are also filled with painted glass. A sedilia and credence niche are provided in the south wall. The whole of the interior of the church is lined with brick and the outside with stonework in irregular courses, the old stone being used up, whilst all the door and window dressings (excepting those in crypt) are of freestone from Cefn and Ruabon. The roof over nave is open up to the level of the upper collar. The chancel and transept roofs are boarded, and have cornices and moulded ribs dividing the lengths into bays. The floors of nave, transepts, aisles, and vestry are of wood blocks upon a concrete foundation, being supplied and fixed by the patentees, Messrs. Dovestone, Manchester. The chancel is paved with encaustic tiles, and the steps are of dark green Connemara marble. The church is heated with hot-water pipes, the heating apparatus being fixed in a chamber below the vestry; the engineer for this work was Mr. T. A. Wynne Edwards, The Foundry, Denbigh. The building is lighted by gas, ornamental pendants, the patent of Messrs. James Stott & Co., Liverpool. The accommodation is near 700. The stained glass windows are from the studios of Messrs. A. Ballantine & Gardiner, Edinburgh. The font and lectern are by Messrs. Jones & Willis, of Liverpool; and the reredos and pulpit are by Messrs. Earp & Hobbs, of London and Manchester. The altar was executed in British oak by Messrs. Harry Hems & Sons, of Exeter; and the chancel is paved with encaustic tiles supplied by Messrs. Carter & Co., of Poole; and the marble steps by Messrs. J. & H. Pattison, of Manchester. The general contract was let to Mr. Samuel, of Wrexham.

NIGHT ASYLUM FOR THE HOUSELESS, GLASGOW.—A night asylum for the houseless in North Frederick-street, Glasgow, has just been re-opened after considerable repairs and alterations. The architects were Messrs. John Burnet, Son, & Campbell, the builder being Mr. Robert Murdoch.

DAUNTSEY AGRICULTURAL COLLEGE, WEST LAMINGTON, WILTSHIRE.—On the 7th inst., the Right Hon. Joseph Chamberlain opened the new Dauntsey Agricultural College, Wiltshire. The building stands in some 14¾ acres of land, near the edge of Salisbury Plain. Mr. C. E. Ponting, diocesan architect, of Lockeridge, near Marlborough, is the architect, and Mr. Henry Hoskins, of Hungerford, has carried out the building operations. The frontage is 200 ft., and the building is of red local brick, relieved between the first and second floor windows with salt-glazed grey headers. Dormer windows are used. The main entrance is in the centre of the front, and is of freestone relieved with red bricks. The Dauntsey crest is over the doorway, and leading from the entrance-hall is a flight of steps of blue Victoria-stone, leading to the dormitories, &c., on the first floor. Over the staircase is a chamber fitted with three large tanks, to which the water supply for the building is pumped from a deep well in the grounds, and a bell turret is surmounted by a wrought-iron vane. On the ground floor there are offices for the clerk, a boys' library and recreation-hall, 24 ft. by 20 ft., and 15 ft. high; a large schoolroom, 52 ft. by 20 ft., sub-divided into class-rooms by movable screens; dining-hall, 41 ft. 6 in.; lecture-hall and museum, 42 ft. by 25 ft.; chemical laboratory, 30 ft. by 20 ft., fitted with lantern roof and fume covers. On the first floor are three dormitories, two fitted for 17 beds each, and one for 15. There are also rooms for assistant masters and store chambers. At the south-west end is a house for the head-master. Close to this are the domestic offices. A system of electric bells, also fire hydrants, and other necessary appliances have been fitted. A 4 ft. dado of glazed Ruabon bricks runs all through the rooms on the ground floor, and a corridor 180 ft. long, fitted with a similar dado, gives access to all the departments on the ground floor and to the head-master's house.

MUNICIPAL BUILDINGS AT HYSON GREEN.—Work has been commenced recently in connexion with a set of buildings for the Hyson Green district of Nottingham. For some years the Town Council have had under consideration the desirability of the establishment of a permanent police-station in that neighbourhood, but since the proposal was first brought forward the scheme has been very much enlarged, including now the erection of a reading-room, a public mortuary, and a fire-station, and the provision of an inquest-room above the charge-room and cells. The land upon which the works are in progress is situated upon the north side of Gregory-boulevard, at the junction of that thoroughfare with Radford-road. The charge-room will be situated at the junction of the boulevard and the Radford-road, so that the officer on duty can have the main roads under his observation. Four cells will be provided at the side of the charge-room, separated from the latter by the entrance. Above the charge-room is to be erected the room in which inquests are to be held, this being 24 ft. long by 16 ft. 6 in. wide. As in the case of the other district police-stations, the sergeant in charge will have a residence placed at his disposal, and this is to be erected next to the cells. It has been thought advisable to enlarge the accommodation originally provided in connexion with these buildings, and a fire-station will now be built to hold a steam fire-engine, a large hose-reel, and a combination fire-escape. There will also be stabling room for three horses. Upon the Carrington side of the fire station will be the mortuary and post-mortem room, these being approached from a yard adjoining Gregory-boulevard. Separated from the mortuary by this yard is to be erected the reading-room, which is planned to be 67 ft. long by 28 ft. wide. It is intended to establish a branch free library, and the room will be fitted up as a reading-room. In accordance with the conditions attached to the land, the buildings, which will be of plain brick with stone dressings, have to be set back 20 ft. from the Gregory-boulevard, but the charge-room will abut upon the pathway in Radford-road. The contract has been let to Mr. J. J. Adams, of Nottingham, and the work is being carried out under the supervision of Mr. Arthur Brown, the Borough Engineer.

PUBLIC HALL, BRODICK, BUTE.—Brodick Public Hall was opened on the 10th inst., by the Rev. H. Robertson Fullarton. The hall has been erected from the designs of Mr. Burnet, Glasgow.

UNITED METHODIST FREE CHURCH, CAMELFORD, CORNWALL.—The Camelford United Methodist Free Church trustees have accepted the tender of Messrs. Hooper & Dennis, builders, Camelford, for alterations and additions to their building. The architects are Messrs. Wise & Wise, of Launceston.

BAPTIST CAPEL, CAMBUSLANG, LANARKSHIRE.—A Baptist Chapel at Cambuslang was opened on the 12th inst., by the Rev. W. Landels, D.D., Edinburgh. The church has accommodation for 700 persons, is of red stone, with front gallery and hall. The builders were Messrs. Warnocks & Horsburgh, and architect, Mr. Wm. Ferguson, Cambuslang. The cost of the erection was about 2,000*l.*

OAK CHOIR SEATS, ASHLEWORTH CHURCH, GLOUCESTERSHIRE.—New oak choir seats, designed to match the Jacobean pulpit, have recently been given to this church by an anonymous donor. A new reading desk, in which a panel, dated 1635, forms the front, and the restoration of the fine old pulpit completes the new work, which has been carried out by Messrs. Collins & Godfrey, of Tewkesbury, from the designs and instructions of Mr. Robert Marchant, architect.

## *FOREIGN AND COLONIAL.*

FRANCE.—A committee has been formed in Paris for the erection of a mosque.——An international exhibition of the centenary of lithography is to be opened on August 15, in the Galerie Rapp.——In the Avenue des Champs Elysées an interesting historical and military exhibition of the Revolution has been opened, under the direction of M. Detaille, the eminent painter.——There is a curious exhibition of pictures by Claude Monet, open in the Durand-Ruel Gallery. Among the number are no less than twenty studies of Rouen Cathedral.——The "Société d'Encouragement à l'Art et à l'Industrie" will shortly open its fifth competition in decorative design at the Ecole des Beaux-Arts. The subject will be a decorative design including a thermometer and barometer.——The Minister of Public Works has just laid the first stone of the viaduct on the line from Carmaux to Rodez. This is a very important work, which will cost 2,600,000 francs, and will cross the immense ravine through which the river Vrain runs. It will be about 460 mètres long and 117 high. The central bay will be 220 mètres wide. The bridge portion will be of steel. M. Bodin-Legendre is the engineer.—— The Minister of War has just opened the new school of military surgery at Lyons, built from the designs of M. Raoul Dubuisson.——A monument has just been inaugurated, at Bapaume, to the soldiers who fell in the battle there in 1871. The monument is the work of M. Cordonnier, and consists of a large circular granite base decorated with plaques of marble covered with commemorative inscriptions. Above this is a rock with a cross erected on it.——Six new monuments are to be erected, this summer, to the memory of soldiers who fell in the great war. The most important is that to be erected by the Municipality of Perpignan. The five others will be at Thorigné, Hébicourt, Puy, Orange, and Chartres.——The meeting of the Congrès Archéologique of France will be held, this year, at Clermont-Ferraud, from the 5th to the 13th of June.——M. Georges Bareau, the sculptor, has been commissioned to execute the monument which is to be erected at Ploërmel, to the memory of the eminent doctor, Alphonse Guérin.——An exhibition of the works of M. Fouace, the painter, who died a few months ago, has been opened at the Ecole des Beaux-Arts.

## *MISCELLANEOUS.*

A FLUSHING-RIM FOR BATHS.—Mr. H. Riley sends us a drawing and description of a new method of supplying water to an ordinary bath by means of a flushing-rim, by which the incoming water is admitted in a sheet all round the bath, thus cleansing all its surfaces and sweeping away anything that may have adhered to the sides. The other advantage claimed, that hot water thus admitted warms the bath, is rather doubtful, seeing that the water does so by parting with its heat to the bath. It is the water we want hot, not the bath.

MEMORIAL CROSS, ST. ANDREW'S CHURCH, PLYMOUTH.—A memorial cross has just been erected at St. Andrew's Church, Plymouth, from the designs of Messrs. Hine & Odgers, architects, of Plymouth. It is 70 ft. high, and the base is of polished granite, surrounded by steps, octagonal on plan, of Plymouth limestone. The fabric generally is of Portland stone. A red sandstone, raised in quarries at Micheldean, is introduced in alternate layers. The cross may be divided into three distinct tiers or stages. On each of the four faces of the first or lower one, there is a moulded arch with double shafts and carved capitals. The recesses contain slabs of polished granite, on two of which are inscriptions. The central stage is treated somewhat similarly to the lower one, but is higher, and it contains niches for statuary. At either angle are pinnacles. Above are more pinnacles, and a crocketted spire terminating with a cross of wrought copper. The carved foliage throughout the fabric has been done by Messrs. Harry Hems & Sons, of Exeter. In each of the four niches, resting upon a base carried by a polished granite column, is an allegorical statue, That on the south side is one of Hope, with an anchor by its side; on the north stands Peace, wearing the crown; on the east, Faith, with the cross; and on the west, Charity, with an orphaned little one in her arms. A new boundary wall has also been erected, designed by Messrs Hine & Odgers, the piers being carved by Messrs. Hems & Sons. The wrought-

iron work is by Messrs. Hardman & Powell, of Birmingham. The general contractor for all the works is Mr. John Finch, of Plymouth.

CLOCK AT THE PARISH CHURCH, SHEPSHED, LEICESTERSHIRE.—A large clock, with Westminster chimes, has just been fixed at the parish church, Shepshed, by Messrs. John Smith & Sons, Derby, and was formally started by the Bishop of Peterborough.

THE LONDON SCHOOL BOARD AND THE ARCHITECT'S SALARY.—At a meeting of the London School Board on the 9th inst., at the offices on the Victoria Embankment, General Moberly moved (on behalf of the Works Committee) that the salary of Mr. T. J. Bailey, the Board's architect, should be raised from 900*l.* to 1,000*l.* per annum. Mr. Huggett moved as an amendment that Mr. Bailey should be merely granted an honorarium of 300*l.* for the extra work he had done in preparing plans and drawings for the enlargement of the Board's offices. The Rev. W. Hamilton formally seconded the amendment, though he disapproved of it. Mr. Barnes protested against both proposals. He objected to putting hundreds of pounds on to highly-paid officers, when the Board declined to hear of increases in the case of lower officials. The amendment was lost by 11 votes against 24; and the original motion was carried by 21 against 18, most of the Progressives voting in the majority.

BUILDING TRADES' INDUSTRIES FEDERATION, GLASGOW.—A mass meeting of the Glasgow and Suburbs Building Trades' Industries Federation was held in the North Saloon of the City Hall, Glasgow, on the 10th inst. Mr. Alex. M'Cormick, the President, occupied the chair. The Chairman said the aim of the Federation was to raise the conditions of the men to suit their lives. He asked the different trades to lay aside their petty jealousies and work together for the same end—that of raising their position, and giving them fuller opportunity for enjoying family life and for improving their intellects. Mr. James Falconer, joiner, moved a resolution to the effect that, as trades unionists, they believed that by mutual federation of the various societies connected with the building industries, much good could be effected both for defensive and organising purposes, and they therefore called on all to enrol themselves members of the Federation. He contended that, while the society connected with each trade might do all that was required for the benefit of the members, yet if they were federated an advance of wages might more easily be obtained, and strikes would become things almost unknown. Mr. James Gunn, bricklayer, seconded the resolution, and expressed his belief that federation would accomplish more for the workers than did the trades unions which worked on the old lines. The resolution was put to the meeting and carried unanimously. On the motion of Mr. W. Smith, National Labourers' Union, the meeting pledged itself to use every legitimate means to induce outstanding societies of the building trades to join the Federation at the earliest opportunity.

DIOCESAN SURVEYORSHIP APPOINTMENTS.—Mr. Arthur Baker and Mr. Richard P. Day, both of London, have been appointed Surveyors of Dilapidations in and for the Diocese of London in accordance with the Ecclesiastical Dilapidations Act of 1871, to fill the vacancy caused by the recent death of Mr. Gordon M. Hills who held the appointment as sole Surveyor for the Diocese since 1871.

MARBLE MEDALLION PORTRAIT, ST. PAUL'S CATHEDRAL.—A marble medallion portrait of Sir Robert Montgomery was unveiled on the 13th inst., in the Crypt of St. Paul's Cathedral, by Sir Henry Davies. The medallion is the work of Mr. Bruce-Joy.

APSE WINDOWS, GRACECHURCH, UTICA.—Referring to this design, which was published among our illustrations on May 4th, Mr. Holiday writes:—"I find a rather comical error, for which I am afraid I am responsible, in the description of the Apse Windows at Utica, where I had described the centre panel as representing the Saints' Rest in Paradise. This description is correct as regards the windows as they now stand; but in the original design, from which your reproduction is taken, I had occupied this space with the Three Children in the Furnace, supposed to be singing their hymn. I fear this may be regarded as a rather singular illustration of the Saints' Rest in Paradise."

A CONTAINER FOR SINK WASTES.—The Falkirk Iron Company send us drawings of "Rowland's container for sinks," which is a perforated metal cup, about the shape and proportion of an ordinary tumbler, and with a projecting flange round the rim, which is intended to fit into the upper portion of a sink waste, just above the usual S bend. By this means all matter which under ordinary circumstances might accumulate in the bend, which always requires cleaning from time to time, would be caught by the container, which can be lifted out and cleaned as often as necessary without the least trouble.

## *LEGAL.*

### THE NEW SEA-WALL AT FLEETWOOD.

THE case of Walmsley & Co. *v.* The Urban District Council of Fleetwood came before the Court of Appeal, consisting of the Master of the Rolls and Lords Justices A. L. Smith and Rigby, on Monday last, it being the appeal of the defendants from the decision of Mr. Justice Day, in Chambers, confirming the decision of the Registrar of the District Registry, refusing to refer the matters in dispute to the Surveyor to the Urban District Council of Fleetwood. It appeared that the plaintiffs were builders and contractors, and under two contracts they had undertaken to construct a sea-wall and carriage drive for the defendants—then the Improvement Commissioners for the district of Fleetwood. During the progress of the works the plaintiffs represented to the defendants through their surveyor that the sea-wall, which according to the specification was only to be 16 in. thick, would not be strong enough to resist the force of the sea, especially in stormy weather. The defendants' surveyor, on the other hand, entertained a different opinion, and ordered the work to proceed as usual, in accordance with the plans and specifications. Subsequently a portion of the sea-wall gave way, and the plaintiffs being required to rebuild it, did so. They claimed an additional sum of 3,401*l.* 9s. 10d., which the defendants wished referred to their surveyor, as provided for, as they alleged, under two clauses in the two contracts they had entered into with the plaintiffs. This was declined. When the case was entered for hearing at the Manchester Assizes the Registrar refused to entertain an application to stay the proceedings, and on an appeal to Mr. Justice Day he confirmed the decision of the Registrar; hence the present appeal.

The Court, after hearing Mr. Willes-Chitty on behalf of the appellants (the defendants), and without calling upon counsel for the respondents (the plaintiffs), dismissed the appeal with costs.

### THE LONDON BUILDING ACT, 1894.

MATTHEWS *v.* SALT.

AN important decision was given by Mr. Horace Smith, the magistrate sitting at the Clerkenwell Police Court, on Friday, the 3rd inst., with especial reference to Section 212 of the new London Building Act.

The defendant, a builder, who was erecting a beer house in Collier-street, Pentonville (for Messrs. Whitbread, the brewers), was summoned by the complainant, the acting District Surveyor of Clerkenwell (during Mr. Carrick's absence from ill health), for not separating, by a fire-resisting floor, that part of the premises used for trade from the part used as a dwelling house, the total area of the building exceeding ten squares.

The builder's notice was dated January 23, 1895, and the buildings were commenced about the end of February. It appeared that some letters passed between the freeholder's agent and Messrs. Whitbread in April and May, 1894, by which the latter agreed to take the premises from the freeholder and to build a new house thereon, and that the terms of these letters were embodied in a more ample formal contract of September 10, 1894. The drawings for the new house were as required by Clause 4 of the formal contract approved by the freeholder's surveyor about the end of October, and the forma consent given to them on November 1, 1894. When the drawings were submitted to the District Surveyor he called the attention of Messrs. Whitbread's architect to the requirements of Section 74 of the Act as to the construction of the building in certain particulars of fire-resisting materials, and served the builder with notice of objection under Section 150, on which the builder took no steps, as he contended that the contract for this building was entered into before the passing of this Act, and that, therefore, he came within Section 212, and the new building would be erected in compliance with the old law.

The builder having proceeded to erect his building, and having laid fir joists for the floor forming the separation of the first story (which consisted of the living and sleeping rooms for the occupier) from the ground floor, notice of irregularity was, on April 4, served on him by the District Surveyor, under Section 151, and a summons issued on the notice not being complied with.

On behalf of the builder it was argued by Mr. J. P. Grain, who appeared with Mr. Sidney Knox for the defendant, that the contract under which the house was being built dated from April 16 last year, when Messrs. Whitbreads purchased the lease from the tenant of the premises. He said they then applied to the surveyor to the freeholder for a building-lease, and on May 31 they received a letter containing the terms on which a new lease would be granted.

These were accepted by them except as to the amount to be expended in rebuilding, which was afterwards agreed. The formal contract was signed on September 10, 1894, and the drawings were submitted on October 5 to the freeholder, and afterwards signed. Mr. Grain contended that the letters between the parties, dated May 31 and June 5, constituted a good contract, and could have been legally enforced. He also argued that if the magistrate was against him on this point that he submitted that a public-house did not come under Section 74, and that to build a wall around the bar-parlour, which was part of the domestic building, and shut it off from the bar would make it absolutely useless, and further, that notwithstanding the defendant had not appealed to the magistrate under Section 150 to set aside the requirements of the District Surveyor, that it was still open to the magistrate to decide what should be done.

Mr. T. Seager Berry, from the office of the Solicitor to the London County Council, pointed out that, as the passages and staircase had not yet been constructed, and that consequently no irregularity had been committed, the summons was simply for making the floor fire-resisting.

The Magistrate, without calling on Mr. Berry, stated that, although he agreed that the arrangement come to in the letters of May 31 and June 5 was a binding contract between the owner and tenant, he did not consider such a contract was a contract as meant by Section 212. Contract in that Section, in his view, meant a contract to make a particular building, and not a contract to purchase or take land on which a building is to be erected. He did not think that in this case a proper contract to satisfy that Section had been made till the document of September 10, 1894, was signed, and the plans mentioned therein drawn. He was against Mr. Grain on Section 74. He thought the Section applied to a public-house, which did not come within the Section referring to hotels and public buildings, and it seemed to him that a public-house must be held to be a building used in part for the purposes of trade.

He therefore ordered that the whole of the floor under the dwelling-rooms should be made of fire-resisting materials.

## *CAPITAL AND LABOUR.*

THE BUILDING TRADE AT BOLTON.—A dispute in the building trade at Bolton was settled on the 13th inst. by the masters conceding a halfpenny per hour and reducing the working hours from 52 per week to 49½ in winter and 47 in summer.

BRICKLAYERS' STRIKE AT CROWNHILL.—The award of the Mayor of Plymouth (Mr. W. Law), respecting the dispute between Messrs. Pethick Bros., who have a large contract for building cavalry barracks at Crownhill, and the bricklayers has now been taken up. Messrs. Pethick suggested arbitration several months since, but the offer was rejected. The Mayor's award is as follows:—Walking time is to be disallowed, and payment of wages is to be made at the rate of 8d. per hour to bricklayers residing at Plymouth.

BUILDING TRADE WAGES IN FRANCE.—A recent elaborate and exhaustive report by the United States Commercial Agent at Roubaix on the hours of labour, wages, working days per year, classification of workers, and other questions immediately relating thereto as they exist in Paris and the Department of the Seine, contains much information of value to the building and allied industries. These industries give employment to skilled and unskilled workers in about equal proportions, except in the construction of earthworks, where the majority of workmen are labourers. Work rarely ceases on Sunday except in the masonry trade. The average duration of a working day is from 9 to 10½ hours according to the season. During the summer painters work 10 hours, masons 11 hours, paviors 12 and 13 hours, and in winter the hours are sometimes reduced to 7 for these trades. The Report contains a table giving the wages per hour accorded to first-class workmen in the building industries by the Board of the Department of the Seine, in comparison with the official tariffs of wages of the City of Paris and the Society of Architects.

## MEETINGS.

FRIDAY, MAY 17.

*Association of Municipal and County Engineers.*—Western Counties District meeting, to be held at Plymouth.

SATURDAY, MAY 18.

*Institution of Junior Engineers.*—Visit to the Imperial Institute, to inspect the heating system, and other engineering features.

*Association of Municipal and County Engineers.*—Western Counties District meeting (concluded).

MONDAY, MAY 20.

*Royal Institute of British Architects.*—Professor G. Baldwin Brown, M.A., on "Anglo-Saxon Architecture." 8 p.m.

*Victoria Institute.*—4.30 p.m.

*Society of Arts (Cantor Lectures).*—Mr. Ernest Hart on "Japanese Art Industries." I. 8 p.m.

TUESDAY, MAY 21.

*Institution of Civil Engineers (in the Temporary Offices, No. 9, Great George-street).*—Last Ballot for Members for the Session. 8 p.m.

WEDNESDAY, MAY 22.

*Carpenters' Hall, London Wall (Lectures for shop and outdoor Foremen).*—Professor T. Roger Smith on "The Framing and Construction of Partitions and Floors and Temporary Structures." 8 p.m.

*Society of Arts.*—Mr. A. G. Charleton on "The Dressing and Metallurgical Treatment of Nickel Ores." 8 p.m.

THURSDAY, MAY 23.

*Society for the Encouragement of the Fine Arts.*—Third Conversazione, at the Galleries of the Royal Institute of Painters in Water Colours, Piccadilly.

*Institution of Electrical Engineers.*—Continuation of discussion on Mr. Mark H. Robinson's paper "On the Recent Development of the Single-acting High-speed Engine for Central Station Work." 8 p.m.

FRIDAY, MAY 24.

*Architectural Association.*—Mr. Walter Crane on "The Influence of Architectural Style upon Design." 7.30 p.m.

*Glasgow Architectural Association.*—Visit to Douglas.

SATURDAY, MAY 25.

*Northern Architectural Association.*—Visit to South Shields.

*Edinburgh Architectural Association.*—Visit to (1) Floors Castle; (2) Kelso Abbey.

## RECENT PATENTS:

### ABSTRACTS OF SPECIFICATIONS.

254.—WINDOWS: *R. Adams.*—This patent relates to methods for opening and fastening swing windows, ventilators, fanlights, &c. In a fanlight hinged at its lower edge so as to open from above, a short tooth-rack is fitted to the top rail of the swing-frame, and gears with a pinion attached to the fixed frame. The rack and pinion are only in gear when the window is closed, or nearly so, and are actuated with a pully and cord. Another cord fastened to the frame and carried over a pulley is used for retaining the fanlight in any position beyond the range of the rack and pinion. Fastening is effected by two bolts having plates attached to their inner ends with diagonal slots formed in them for receiving a handle with corresponding projecting surfaces. This handle, when pressed inwards or outwards, operates the aforementioned bolts.

9,517.—SEWERS: *M. Tibbits.*—For ventilating sewers, a bracket of suitable shape for holding a glass lamp is attached to the sewer-shaft. A lamp fed by gas from a pipe on the outside of the shaft has a suitable metal tube extending from its top and entering the sewer-shaft. The hot air from the lamp creates the necessary draught for ventilation.

10,676.—SURFACE COMPOSITION: *E. F. Wailes.*—For protecting the surfaces of structures exposed to heat a composition is formed of a mixture of bitumen, lime, resin, and asbestos fibre. The materials are thoroughly amalgamated by boiling and cast into blocks. These blocks are remelted when the composition is applied, it being poured upon the surface to be protected, which has previously been prepared with a coating of bituminous paint. Sheets of asbestos are placed between layers of the composition.

10,806.—VENTILATORS: *J. Rothwell.*—This invention deals with improvements in self-acting Ventilators, and consists of a case provided with suitable outlets, and having mounted on bearings inside a spindle carrying a propeller, rotated by wind cups or vanes attached to the spindle which is extended through the top of the cap. The ratio of the circumferential travel between the cups or vanes and the propeller may be varied by lengthening the supporting arms.

14,460.—SURVEYING INSTRUMENTS: *J. B. Lee.*—Relates to an instrument for surveying with the aid of photography. It consists of a camera and lens, with a graduated compass fitted in the base of the camera. A telescope mounted above the camera and fitted with cross wires in the eye-piece, and having suitable means of adjustment is also added. Cross wires are fitted into a light frame fitting inside the camera in front of the sensitive plate when it is in place ready for exposure. Other fittings and appliances are employed for perfecting the details of construction, or for facilitating the use and extending the applications of the instrument.

16,302.—WALL DECORATION: *W. Ebel.*—A new decorative coating for walls of public buildings. This is prepared by coating-paper which has been previously milled, or glazed with a preparation of colour mixed with japanner's size and boiled oil, and whilst wet is strewn with hot silver sand. Both sides are similarly coated, with the exception that the sand is only applied to the side intended to be placed next the wall.

### NEW APPLICATIONS FOR LETTERS PATENT.

APRIL 29.—8,402, G. Dawnay, Tiles for Permanent Centreing, to be used in the Construction of Fireproof Floors.—8,413, J. Morgan, Sash Fastener.—8,427. D. Hipwell, Fasteners for Sliding Window-sashes.—8,432, A. Benkovich, Polishing or Glossing Floors.—8,455, J. Lant and J. Cooper, Domestic Hot-water Apparatus for Buildings.

APRIL 30.—8,481, W. Edmonds, Spring Window-wedge.—8,502, M. Ferguson, Fire-grates.—8,504, A. Eichhorn, Machinery for Moulding Dutch Tiles.—8,506, W. Schafer, Metallic Lathing.—8,511, T. Taylor, Bond or Tie for Ordinary and Cavity Walls.—8,520, R. Frame, Gully and Grease Traps, &c.—8,541, A. Boult, Enamel Paints.—8,543, W. Echstein and J. Willmore, Metal Laths.—8,548, E. Taylor, Metal Casements.—8,549, E. Farrar and E. Taylor, Metal Casements.—8,555, W. Daniels, Sash-fastener.—8,558, C. Tondeur, Glass for Skylights, &c.

MAY 1.—8,602, J. Mulligan, Ventilators.—8,612, P. Ayton, Door-springs and Checks.—8,620, F. Bond, construction of Fire-proof Floors and Roofs, applicable also to Beams, Lintels, Bressummers, &c.—8,641, J. Blackwood, Stair-tread, Landings, &c.—8,666, J. Bailey, Fastenings for Door-knobs or Handles.

MAY 2.—8,679, R. Elson, Door-fastener.—8,681, W. Buck, Weather-tiling and Tiles therefor, and for roofs and ridges.—8,693, C. Bickerdike, Gully-cleanser.—8,700, J. Bruhn, Chimney-tops.—8,707, H. Darwin, Fittings for Doors, &c.—8,709, W. Roberts, the Strelor Treatment of Waterpipes.—8,751, J. Sheldon, Heating and Ventilating Grate.

MAY 3.—8,763, J. Edmundson, Water-closets.—8,777, G. Renshaw, Auger and Screw Bits.—8,812, P. Bright, Water-closets.—8,822, E. Owen, Device for Pointing or Finishing the Face of Walls.

MAY 4.—8,859, A. Anscombe, Centreing Arches.—8,915, H. Flemming, Varnish.

### PROVISIONAL SPECIFICATIONS ACCEPTED.

5,561, W. Bruce, Heating and Ventilation of Buildings.—5,848, F. Griffin, Movable Gas-brackets.—6,229, W. Stanley, Surveyors' Levels.—6,809, A. Nicholls and A. Boiston, Invisible Door Springs and Checks.—6,860, R. and J. Irving, Gates, Doors, &c.—6,866, P. Stolte, Building Slabs or Blocks.—7,019, J. Holden, Revolving Tools or Cutters for Grooving Wood.—7,195, A. Dawnay, A Burnt or otherwise Prepared Brick-clay, Fireclay, or Cement Tile.—7,320, T. Robinson, Window-fasteners.—7,384, G. Kirk, Glass for Roof Lights, &c.—7,425, H. Simmonds and J. Delaney, Kilns or Furnaces for Burning Lime, &c.—7,591, W. and H. Jones, Fireproof Tile Ceilings, Partitions, &c.—7,622, R. Walker, Artificial Stone Slabs, &c.—7,635, W. Youlten, Casements and Doors.—7,775, J. Gillotts, Attachments for Door-knobs, &c.—7,833, J. Carroll and J. Moore, Ridge Tiles.—7,920, W. Joy, Drying Slurry by the Waste Heat from Cement Kilns.

### COMPLETE SPECIFICATIONS ACCEPTED.

*(Open to Opposition for Two Months.)*

9,903, J. Phillips, Hinges.—10,353, J. Morris, junior, Pendant Fittings for Electric Lamps.—12,905, C. Knox, Roofing Tiles.—12,961, S. Lees and others, Wood-planing Machines.—21,735, E. Weekworth and M. Hœft, Lime Mixtures and Cements or Mortars.—1,465, J. Walker, Telescoping Portière Rod for Doors.—6,501, M. Schroeder, Water-pipes.

## SOME RECENT SALES OF PROPERTY:

### ESTATE EXCHANGE REPORT.

MAY 2.—By *Humbert, Son, & Flint* (at Radlett): Two plots of bldg. land, Watling-st.-rd., Radlett, Herts, f., 80*l.*; 5 plots of bldg. land, Malt-lane, f., 131*l.*; 6 plots of bldg. land, Park-rd., f., 242*l.*; 8 plots of bldg. land, Station-rd., f., 488*l.* 8s.

MAY 6.—By *Tyser & Chamberlain:* 5 and 7, Maygrove-rd., Kilburn, u.t. 84 yrs., g.r. 14*l.*, r. 114*l.*, 880*l.*—By *Prickett & Ellis:* "Clock House," Compton-rd., Winchmore Hill, f., 1,130*l.*—By *Macer, West, & Fitzwilliam:* 77, Cecile-pk., Crouch End, l., sold privately.

MAY 7.—By *Chancellor & Sons:* "Clarence House," The Vineyard, Richmond, c., 1,650*l.*—By *Fuller & Fuller:* Building Estate, Residence, "Elm Grove," Barnes, and 12 acres, f., 14,050*l.*; "The Lindens," Westcombe-pk-rd., Blackheath, f., r. 66*l.*, 1,020*l.*; 266, Brockley-rd., f., r. 40*l.*, 530*l.*; 95, Lewisham High-rd., Lewisham, u.t. 34 yrs., g.r. 2*l.*, 450*l.*—By *Debenham, Tewson, Farmer & Bridgewater:* f.g.r. of 8*l.*, Wandsworth-rd., Wandsworth, reversion in 65 yrs., 220*l.*; f.g.r of 72*l.* 15s., Fountain-st., reversion in 65 yrs., 1,910*l.*; f.g.r. of 28*l.* 10s., Fountain-st. and Conroy-st., reversion in 65 yrs., 745*l.*; f.g.r. of 63*l.* 15s., Fountain-st., reversion in 65 yrs., 1,665*l.*; f.g.r. of 53*l.* 6s., Conroy-st., reversion in 65 yrs., 1,525*l.*—By *P. Hodson:* 444, Seven Sisters-rd., Finsbury-pk., u.t. 70 yrs., g.r. 14*l.*, 720*l.*; 58, Fonthill-rd., u.t. 69½ yrs., g.r. 7*l.*, r. 36*l.*, 260*l.*—By *H. E. Saunders:* f.g.r. of 15*l.*, Nursery-rd., Brixton, reversion in 79 yrs., 370*l.*; Factory, stabling, &c., Nursery-rd., f., r. 25*l.*, 460*l.*; 45 and 47, Nursery-rd., f., r. 67*l.* 12s., 710*l.*—By *A. A. Hollingsworth:* l.g.r. of 78*l.* 13s. 10d., Maidstone-st., &c., Shoreditch, u.t. 14 yrs., g.r. 19*l.* 19s. 11d., 265*l.*; 7 and 9, Cecil-rd., Leytonstone, u.t. 73 yrs., g.r. 8*l.*, 250*l.*—By *Humbert, Son, & Flint* (at Watford): Plot of bldg. land, Cardiff-rd. and St. James'-rd., Watford, Herts., f., 48*l.*; 2 plots of bldg. land, St. James'-rd., f., 73*l.*; 8 plots of bldg. land, Clifton-rd., f., 329*l.*; 6 plots of bldg. land, St. James'-rd., f., 270*l.*; 4 plots of bldg. land, Cardiff-rd., f., 108*l.*; 2 plots of bldg. land, Westbury-rd., f., 64*l.*; 4 plots of bldg. land, Clifton-rd., f., 164*l.*; 17 plots of bldg. land, Liverpool-rd., f., 467*l.*; 11 plots of bldg. land, Cardiff-rd., f., 36*l.*

MAY 8.—By *Rushworth & Stevens.*—14, Kildare Gardens, Bayswater, u.t. 56 yrs., g.r. 8*l.*, 570*l.*; 4, Chapel-rd., Notting-hill, u.t. 69½ yrs., g.r. 8*l.* 8s., r. 40*l.*, 310*l.*; 34, Acklam-rd., u.t. 71½ yrs., g.r. 8*l.*, r. 40*l.*, 330*l.*; 55, 56 and 57, New Cut, Lambeth, l.g.r. of 48*l.* 4s., u.t. 12½ yrs., g.r. 30*l.*, 100*l.*; 63, New Cut, u.t. 12½ yrs., g.r. 12*l.* 15s. 8d., r. 63*l.*, 260*l.*—By *Glasier & Sons:* 12 and 13, Thavies Inn, Holborn, f., r. 190*l.*, 4,125*l.*—By *Cooper & Goulding:* f.g.r. of 70*l.*, Holborn Bldgs, Holborn, reversion in 52 yrs., 2,100*l.*; f.g.r. of 10*l.*, Ladbroke Grove Notting Hill, reversion in 72 yrs., 250*l.*—By *G. B. Smallpeice:* Coburg-rd., and Ann-ter., Old Kent-rd., f.g.r. of 12*l.*, reversion in 22 yrs., 675*l.*; 141 and 143, Coburg-rd., f., 715*l.*; f.g.r. of 15*l.*, Neate-st., reversion in 78 yrs., 380*l.*; "Golden Eagle" Public-house, and Workshop, Trafalgar-rd., f., r. 65*l.*, 1,500*l.*; 120, Trafalgar-rd., and Piece of Land, f., 1,050*l.*; f.g.r. of 63*l.* 15s., Trafalgar-rd., reversion in 77 yrs., 1,755*l.*, f.g.r. of 39*l.* 10s., Neate-st., reversion in 77 yrs., 1,090*l.*; f.g.r. of 36*l.* 15s., Goldie-st., reversion in 77 yrs., 1 003*l.*; f.g.r. of 2*l.*, Goldie-st., reversion in 32 yrs. 80*l.*; f.g.r. of 7*l.*, Goldie-st., reversion in 48 yrs., 185*l.*; f.g.r. of 5*l.* 5s., Goldie-st., reversion in 27 yrs., 185*l.*—By *Edwin Smith & Co.:* F.g.r. of 8*l.* 8s., Libra-rd., Old Ford, reversion in 60 yrs., 210*l.*; f.g.r. of 100*l.*, Blanchard-rd., Hackney, reversion in 29 yrs., 3,600*l.*; 12 plots of bldg. land, Melrose-av., Willesden, f., 410*l.*; 22, Monnery-rd., Holloway, u.t. 72 yrs., g.r. 7*l.* 7s., r. 44*l.*, 415*l.*

MAY 9.—By *Barber & Co.:* 3, 7, and 13, Werndee-rd., Norwood, f., r. 90*l.*, 1,170*l.*—By *C. C. & T. Moore:* 48, Georgiana-st., Camden Town, u.t. 44 yrs., g.r. 4*l.*, r. 36*l.*, 395*l.*; 64 and 66, Heath-st., Stepney, f., 425*l.*; 761, Commercial-rd. East, Limehouse, u.t. 70 yrs., g.r. 5*l.*, 410*l.*; 47, 49, and 51, Northern-rd., Plaistow, f., 595*l.*—By *G. Simmins & Ellis:* 47, 49, and 51, Hayford-av., South Lambeth, u.t. 92 yrs., g.r. 25*l.* 10s., r. 172*l.*, 1,145*l.*; 12, 13, 19 and 20, Princes-st., Bermondsey, f., 1,225*l.*; 40 and 42, Heyford-av., South Lambeth, u.t. 92 yrs., g.r. 17*l.*, 765*l.*; 16, Arliss-rd., Battersea, u.t. 74 yrs., g.r. 6*l.*, r. 30*l.*, 250*l.*—By *Chesterton & Sons:* 33, Castlenau Villas, Barnes, u.t. 30 yrs., g.r. 10*l.*, 570*l.*; 76, Westbourne-pk.-rd., Bayswater, u.t. 41 yrs., g.r. 5*l.*, 450*l.*—By *Newbon & Co.:* 22, Highbury-grove, Highbury, f., 1,300*l.*; 12, Mildmay-grove, Mildmay-pk., u.t. 56½ yrs., g.r. 8*l.*, 350*l.*; 10 and 11, Westfield-rd., Surbiton, f., 570*l.*; 9 to 14, Cranbrook-rd., Tottenham, u.t. 84 yrs., g.r. 18*l.*, 645*l.*—By *G. B. Smallpeice:* f.g.r. of 37*l.* 10s., Goldie-st., Old Kent-rd., reversion in 18 yrs., 770*l.*; 25, 27 and 29, Goldie-st., f., 550*l.*; f.g.r. of 15*l.*, Goldie-st., reversion in 20 yrs., 420*l.*; f.g.r. of 8*l.*, Goldie-st., reversion in 5½ yrs., 1,330*l.*; 125, Coburg-st., f., r. 40*l.*, 530*l.*; f.g.r. of 33*l.*, Coburg-rd., reversion in 27 yrs.; and 3, Castle-st., f., 760*l.*; 129 and 131, Coburg-rd.; and 3 and 4, Castle-st., f., 880*l.*; f.g.r. of 36*l.*, Coburg-rd. and Neate-st., reversion in 24 yrs., 890*l.*; f.g.r. of 4*l.*, Castle-st., reversion in 48 yrs., 90*l.*; f.g.r. of 4*l.* 10s., Goldie-st. and Castle-st., reversion in 23 yrs., 150*l.*; f.g.r. of 35*l.*, Goldie-st., reversion in 29 yrs., 1,210*l.*; f.g.r. of 5*l.*, Goldie-st., reversion in 78 yrs., 120*l.*; 175A, Neate-st.; 3 to 7, Castle-st.; and 12, 14, and 16, Goldie-st., f., 810*l.*; f.g.r. of 5*l.*, Neate-st., reversion in 4½ yrs., 80*l.*; f.g.r. of 55*l.*, Neate-st., reversion in 24 yrs., 1,620*l.*; f.g.r. of 16*l.*, Coburg-rd. and Neate-st., reversion in 20½ yrs., 1,200*l.*; f.g.r. of 31*l.*, Neate-st., reversion in 9 yrs., 2,170*l.*; f.g.r. of 24*l.*, Neate-st., reversion in 2½ yrs., 1,310*l.*; f.g.r. of 24*l.*, Neate-st., reversion in 23 yrs., 1,100*l.*; f.g.r. of 8*l.* 5s., Neate-st., reversion in 27 yrs., 360*l.*; f.g.r. of 4*l.*, Neate-st., reversion in 30 yrs., 980*l.*; f.g.r. of 15*l.*, Neate-st., reversion in 10½ yrs., 1,500*l.*; f.g.r. of 10*l.*, Neate-st., reversion in 8¼ yrs., 770*l.*; f.g.r. of 24*l.*, Neate-st., reversion in 48 yrs., 780*l.*; f.g.r. of 7*l.*, Neate-st., reversion in 23½ yrs., 500*l.*; f.g.r. of 12*l.*, Neate-st., reversion in 28 yrs., 400*l.*—By *Abercrombie & Edmunds:* 4, The Villas, The Heath, Hampstead, f., r. 34*l.*, 440*l.*; St. James's Cottage, f., 240*l.*; St. John's Cottage, f., r. 26*l.*, 355*l.*; Prospect House, f., r. 22*l.*, 265*l.*; l.g.r. of 90*l.*, Lincoln Mews, Kilburn, u.t. 63¾ yrs., g.r. 18*l.*, 1,085*l.*; 5 to 8, Lady Margaret-rd., Kentish Town, u.t. 67½ yrs., g.r. 14*l.*, 1,860*l.*; 15 to 19, Wolsey Mews, u.t. 53 yrs., g.r. 1*l.* 5s., 425*l.*; 1 to 6, and 13 to 20, Gardnor-rd., u.t. 74 yrs., g.r. 50*l.*, r. 564*l.*, 4,570*l.*; 58, Flask Walk, Hampstead, u.t. 74 yrs., g.r. 4*l.*, r. 30*l.*, 245*l.*—By *Stimson & Sons:* 19 and 21, Cambridge-ter., Pimlico, u.t. 38¾ yrs., g.r. 17*l.*, 1,020*l.*; 326 and 328, Battersea Pk.-rd., Battersea, u.t. 82 yrs., g.r. 9*l.* 10s., r. 65*l.*, 550*l.*; 13, Colestown-st., u.t. 82¼ yrs., g.r. 5*l.* 5s., 230*l.*; 17, Colestown-st., u.t. 82¼ yrs., g.r. 5*l.* 5s., 200*l.*; 244, Camden-rd., Camden Town, u.t. 43¾ yrs., g.r. 6*l.* 10s., r. 100*l.*, 890*l.*; 25, 26, and 27, Seaton-st., Hampstead-rd., f., r. 107*l.* 8s., 1,060*l.*; 45, Kimberley-rd., Stockwell, u.t. 69½ yrs., g.r. 6*l.*, r. 39*l.*, 285*l.*

MAY 10.—By *Robert Read:* 291, Euston-rd, St. Pancras, u.t. 42¼ yrs., g.r. 60*l.*, r. 130*l.*, 600*l.*; "The Angel" Public-house, Alpha-rd., Surbiton, f., r. 50*l.*, 900*l.*—By *T. B. Westacott:* 12 to 16, Mortimer Market, Tottenham Court-rd., u.t. 9 yrs., g.r. 25*l.*, 440*l.*; 67, Harmood-st., Kentish Town, c., r. 34*l.*, 420*l.*—By *E. Holsworth:* 66 to 80 (even), Lordship-rd., Stoke Newington, u.t. 48 yrs., g.r. 64*l.*, r. 320*l.*, 2,615*l.*; 7, Cowper-rd., South Hornsey, u.t. 56 yrs., g.r. 5*l.* 5s., r. 27*l.*, 215*l.*; 86 and 88, Church-st., Stoke Newington, u.t. 61 yrs., g.r. 12*l.*, r. 100*l.*, 960*l.*; 22 and 24, Arcola-st., u.t. 18¼ yrs., g.r. 7*l.*, 245*l.*; 43, 49, and 51, Queen Elizabeth Walk, u.t. 80 yrs., g.r. 30*l.*, r. 170*l.*, 1,585*l.*; 68, Boleyn-rd., Kingsland, c., 210*l.*—By *Reynolds & Eason:* 31 and 32, Leather-lane, Holborn, 2,900 ft., f., r. 96*l.*, 1,320; 10 and 11, Clifton-ter., Finchley, u.t. 84 yrs., g.r. 7*l.*, r. 45*l.* 10s., 325*l.*—By *G. B. Smallpeice:* F.g.r. of 105*l.*, Neate-st., &c., Old Kent-rd., reversion in 32 yrs., 2,600*l.*; "Young Prince" beer-house, Neate-st., f., r. 17*l.*, 480*l.*; f.g.r. of 37*l.*, Herring-st., reversion in 24 yrs., 1,400*l.*; f.g.r. of 13*l.*, Neate-st., reversion in 9 yrs., 1,325*l.*; f.g.r. of 7*l.* 10s., Neate-st., &c., reversion in 22 yrs., 430*l.*; f.g.r. of 36*l.*, Herring-st., reversion in 18¾ yrs., 1,210*l.*; f.g.r. of 5*l.* 12s., Henry-pl., &c., reversion in 8 yrs., 710*l.*; f.g.r. of 9*l.* 7s. 6d., Henry-pl., reversion in 4¼ yrs., 960*l.*; f.g.r. of 38*l.* 10s., Henry-pl., reversion in 23 yrs., 1,050*l.*; f.g.r. of 45*l.*, Herring-st., reversion in 53 yrs., 1,075*l.*; f.g.r. of 20*l.*, Herring-st., reversion in 26 yrs., 1,080*l.*; f.g.r. of 17*l.* 5s., Neate-st., &c., reversion in 24 yrs., 1,270*l.*; f.g.r. of 52*l.* 10s., Neate-st., reversion in 36 and 39 yrs., 4,375*l.*; "Prince of Wales" beer-house, Neate-st., f., r. 14*l.*, 710*l.*; 145 to 157 (odd), Neate-st., f., r. 45*l.*, 1,440*l.*; f.g.r. of 10*l.*, Coburg-rd., reversion in 1896, 2,660*l.*; f.g.r. of 6*l.*, Neate-st., reversion in 40 yrs., 240*l.*; f.g.r. of 30*l.*, Coburg-st., &c., reversion in 27 yrs., 1,060*l.*; "Bee Hive" public-house, Coburg-rd., f.g.r. of 100*l.*, reversion in 74½ yrs., 2,700*l.*

[*Contractions used in these Lists.*—F.g.r. for freehold ground-rent; l.g.r. for leasehold ground-rent; i.g.r. for improved ground-rent; g.r. for ground-rent; r. for rent; f. for freehold; c. for copyhold; l. for leasehold; e.r. for estimated rental; u.t. for unexpired term; p.a. for per annum; yrs. for years; st. for street; rd. for road; sq. for square; pl. for place; ter. for terrace; cres. for crescent; yd. for yard, &c.]

## PRICES CURRENT OF MATERIALS.

| TIMBER. | | |
|---|---|---|
| Greenheart, B.G. | ton | 8/0/0 0/0/0 |
| Teak, E.I. | load | 10/0/0 16/0/0 |
| Sequoia, U.S. ft. cu | | 1/10 2/2 |
| Ash, Canada load | | 2/10/0 3/15/0 |
| Birch, do. | | 2/10/0 3/15/0 |
| Elm, do. | | 3/5/0 4/10/0 |
| Fir, Dantsic, &c. | | 1/15/0 3/10/0 |
| Oak, do. | | 2/15/0 4/15/0 |
| Canada | | 5/15/0 7/5/0 |
| Pine, Canada red | | 0/0/0 0/0/0 |
| Do. Yellow | | 3/0/0 5/5/0 |
| Lath, Dantsic, fath | | 4/10/0 5/10/0 |
| St. Petersburg.. | | 5/0/0 6/10/0 |
| Wainscot, Riga, &c., log | | 3/0/0 5/5/0 |
| Odessa, crown | | 2/0/0 5/5/0 |
| Deals, Finland 2nd & 1st std 100 | | 7/0/0 8/10/0 |
| Do. 4th & 3rd | | 7/0/0 8/0/0 |
| Do. Riga | | 7/0/0 8/0/0 |
| St. Petersburg, 1st yellow | | 9/10/0 12/0/0 |
| Do. 2nd yellow | | 7/10/0 9/0/0 |
| Do. white | | 8/0/0 9/10/0 |
| Swedish | | 7/0/0 13/10/0 |
| White Sea | | 7/10/0 15/0/0 |
| Canada, Pine 1st | | 22/0/0 24/0/0 |
| Do. do. 2nd | | 16/10/0 17/10/0 |
| Do. do. 3rd, &c. | | 8/5/0 10/10/0 |
| Do. Spruce, 1st.. | | 8/10/0 10/0/0 |
| Do. do. 3rd and 2nd | | 6/10/0 7/5/0 |
| New Brunswick | | 6/0/0 7/0/0 |
| Battens, all kinds | | 5/0/0 21/0/0 |
| Flooring boards, sq., 1 in. prep. 1st | | 0/9/0 0/14/0 |
| Do. 2nd | | 0/6/6 0/11/0 |
| Other qualities— | | 0/4/6 0/7/0 |
| Cedar, Cuba | | /3 /4 |
| Honduras, &c. | | /3 /4½ |
| Mahogany, Cuba | | /3½ /6 |
| St. Domingo, cargo 1st | | /3½ 1/0 |
| Mexican do. do. | | /3 /4 |
| Tobasco do. do. | | /3½ /6 |
| Honduras do. | | /3½ /5½ |
| Box, Turkey | ton | 4/0/0 15/0/0 |
| Rose, Rio | | 7/0/0 16/0/0 |
| Bahia | | 6/0/0 15/0/0 |
| Satin, St. Domingo | | 0/0/5 0/1/0 |

| TIMBER (*continued*). | | |
|---|---|---|
| Satin, Porto Rico | | 0/0/6 0/1/6 |
| Walnut, Italian | | 0/0/3½ 0/0/7 |
| **METALS.** | | |
| Iron—Pig, in Scotland | ton | 2/3/9½ 0/0/0 |
| Bar, Welsh, in London | | 5/12/6 5/13/0 |
| Do. do. at works in Wales | | 5/2/6 5/3/0 |
| Do. Staffordshire, in London | | 6/0/0 6/10/0 |
| COPPER—British cake and ingot | | 47/5/0 47/15/0 |
| Best selected | | 48/10/0 49/0/0 |
| Sheets, strong | | 54/0/0 0/0/0 |
| Chili bars | | 44/3/6 44/7/6 |
| YELLOW METAL | b | 0/0/4½ 0/0/4¾ |
| LEAD—Pig, Spanish | ton | 10/5/0 0/0/0 |
| English com. brands | | 10/5/0 10/7/6 |
| Sheet, English, 6 lbs. per sq. ft. and upwards | | 10/15/0 11/0/0 |
| Pipe | | 11/15/0 0/0/0 |
| ZINC—English sheet | ton | 18/10/0 19/0/0 |
| Vieille Montagne | | 19/10/0 0/0/0 |
| TIN—Straits | | 68/0/0 68/10/0 |
| Australian | | 68/10/0 69/0/0 |
| English Ingots | | 69/0/0 69/10/0 |
| Banca | | 66/10/0 67/0/0 |
| Billiton | | 66/0/0 66/10/0 |
| **OILS.** | | |
| Linseed | ton | 20/7/6 20/12/6 |
| Cocoanut, Cochin | | 24/10/0 24/15/0 |
| Do. Ceylon | | 22/15/0 0/0/0 |
| Palm, Lagos | | 23/0/0 0/0/0 |
| Rapeseed, English pale | | 22/15/0 23/0/0 |
| Do. brown | | 21/5/0 21/10/0 |
| Cottonseed ref. | | 17/15/0 18/10/0 |
| Oleine | | 20/10/0 21/10/0 |
| Lubricating, U.S. | | 4/0/0 5/0/0 |
| Do. refined | | 5/0/0 12/0/0 |
| TAR—Stockholm | barrel | 1/1/0 1/1/6 |
| Archangel | | 0/15/6 0/0/0 |

## TENDERS.

[Communications for insertion under this heading should be addressed to "The Editor," and must reach us *not later than* 10 *a.m. on Thursdays.*]

ABERDARE.—For rebuilding the Carmel Welsh Calvinistic Methodist Chapel, Trecynon. Mr. Rodrick, architect, Aberdare:—
Evan Jones ..... £1,587 | John Morgan, Aberdare * £1,957
* Accepted.

ALNWICK.—For the erection of a pair of houses, Christon Bank, for Messrs. J. & G. Young. Mr. Geo. Reavell, architect, Alnwick:—

| | | | |
|---|---|---|---|
| *Masonry.*—W. Downey, Rennington | £205 | 0 | 0 |
| *Joinery.*—H. Archbold, Alnwick | 135 | 0 | 0 |
| *Slating.*—J. Purdie, Alnwick | 30 | 1 | 1½ |
| *Plastering.*—T. Wood, Alnwick | 42 | 15 | 0 |
| *Painting.*—J. Percy, Alnwick | 8 | 8 | 3 |

# COMPETITION, CONTRACTS, AND PUBLIC APPOINTMENTS.

## COMPETITION.

| Nature of Work. | By whom Advertised. | Premiums. | Designs to be delivered. |
|---|---|---|---|
| *Sewerage Scheme | Leatherhead U.D.C. | 25*l.* | June 28 |

## CONTRACTS.

| Nature of Work or Materials. | By whom Required. | Architect, Surveyor, or Engineer. | Tenders to be delivered. |
|---|---|---|---|
| *Swedish Yellow Deal Blocks | Paddington Vestry | *Official* | May 20 |
| *Portland Cement, Thames Sand, Ballast, and Shingle | do. | do. | do. |
| *Coal Tar and Pitch | do. | do. | do. |
| Granite Kerbs and Channels, &c. | Chertsey U.D.C. | A. W. Smith | May 21 |
| Glazed Sanitary Pipes, Belle Vue | Gorton (Lancs.) U.D.C. | *Official* | do |
| Welsh Setts and other Materials, Knutsford | Bucklow R.D.C. | do. | do. |
| Paving Setts and Kerbs, Chorley, Lancs. | Adlington U.D.C. | do. | May 22 |
| Kerbing, Flagging, Paving, &c. Hanover-street | Mossley (Lancs.) T.C. | do. | do. |
| Sewage Disposal Buildings, &c. Livsey Fields | Bury (Lancs.) Corp. | J. Cartwright | do. |
| Sewer, Clifton, Brighouse | Halifax R.D.C. | J. W. Dyson | do. |
| Schools and House, Shirebrook, Notts | Pleasley School Bd. | F. Ball | do. |
| Street Works, Carmichael-street, &c. | Stockport Corp. | J. Atkinson | do. |
| Re-laying 1,642 sq. yds. of Paving | Castleton (Lancs.) U.D.C. | R. J. Webster | do. |
| Library, Pydar-street | Truro U.S.A. | S. Trevail | do. |
| Additions, &c. to Agricultural Institute, Salterford Hall, Holmes Chapel, Chester | ..... | S. Bull | do. |
| *Concrete Paving | Hackney Vestry | J. Lovegrove | do. |
| Three Houses, Tintagel, Cornwall | ..... | Wise & Wise | May 23 |
| House and Alterations to Chapel, Aberfan, Merthyr Vale | Rev. J. M. Davies | ..... | do. |
| Road Metal | Canterbury T.C. | A. H. Campbell | do. |
| Additions, &c. to Sportsman's Arms Inn, Pennington, near Lymington | Styring & Co. | O. A. Bridges | do. |
| Additions, &c. to Infirmary | Dewsbury Union | W. Hanstock | do. |
| Granite Road Metal | Castle Donnington (Derbyshire) R.D.C. | *Official* | do. |
| Drainage Works | Durham Union | H. T. Gradon | May 24 |
| Drainage Works, Yarra-road, Cleethorpes, Grimsby | ..... | R. A. Robertson | do. |
| Four Houses, Low Moor, Bradford | ..... | H. Hodgson | do. |
| Houses, Rastrick, Yorks | ..... | Horsfall & Son | do. |
| Brick Storage Tank, Pump, Well, &c. Aldwarke-road, Parkgate | Rawmarsh U.D.C. | J. Platts | do. |
| House and Shop, Lake-road, Coniston | Thos. Mandall | ..... | May 25 |
| *Waterworks Extension | Bishop's Stortford U.D.C. | *Official* | do. |
| Schools, Holy Trinity, Darlington | ..... | G. G. Hoskins | do. |
| Church Restoration, St. Bride's, Kirkbridge, Carlisle | ..... | G. D. Oliver | do. |
| Asylum House, Sunnyside | Montrose (N.B.) Corp. | M. Kelly | May 26 |
| Sewerage Works (900 ft.), Brewery-street | Highworth & Swindon R.D.C. | C. Law-Green | May 27 |
| Sewers, South Northfield | King's Norton R.D.C. | R. Godfrey | do. |
| *Lamp Pillars and Market Posts | Brighton Town Council | F. J. C May | do. |
| Reservoir, Bowden | Totnes (Devon) T.C. | N. F. Tollit | do. |
| Thirty Houses, Brook-street, Aberaman, Aberdare | Glaneynon Build. Club | G. A. Treharne | do. |
| *Erection of Schools | Swindon School Board | N. Drew | do. |
| Two Cottages, Carrowclare, Ireland | Limavady Union | *Official* | do. |
| Two Houses, Nash Lighthouses, near Bridgend, Glam. | Trinity House Corp. | do. | do. |
| *Painting Works, Holborn Viaduct | Commrs. of Sewers | do. | May 28 |
| *Wrought Iron Fencing and Gates | London County Council | do. | do. |
| School Extensions | Beighton (Derby) Sch. Board | Hemsoll & Paterson | do. |
| *Surface Water Sewer | Tottenham U.D.C. | P. E. Murphy | do. |
| *Repair of Tar and Asphalte Paving | do. | do. | do. |

## CONTRACTS—*Continued.*

| Nature of Work or Materials. | By whom Required. | Architect, Surveyor, or Engineer. | Tenders to be delivered |
|---|---|---|---|
| *Distempering and Cleansing Wards | Poplar & Stepney Sick Asylum District | G. E. Holman | May 28 |
| Store and Two Houses, Norland, Yorks. | Sowerby Bridge Indus. Soc. | M. Hall | May 29 |
| Making-up Wallesley-road, &c. | Clacton (Essex) U.D.C. | A. R. Robinson | do. |
| *Painting, &c. Works at Workhouse | Holborn Union | C. E. Vaughan | do. |
| *Laying Sewers and Drains | Southend-on-Sea Corp. | H. Harlock | do. |
| *Repairing and Painting Works | St. George's Union | H. Saxon Snell | do. |
| *Paving Works | Greenwich Bd. of W. | *Official* | do. |
| Additions, &c. to Lunatic Asylum, Belfast | Lunacy Commissioners | A. L. Jackson | May 30 |
| Additions, &c. to Union Offices, near Manchester | Prestwich Union | Telford & Co. | do. |
| Additions, &c. to Schools, near Par, Cornwall | Luxulyan School Bd. | W. J. Samble | do. |
| Engineering Works, Rugby | Willans & Robinson, Lim. | T. W. Willard | do. |
| Public Baths, Lichfield-street | Walsall Corp. | Bailey & McConnal | do. |
| *Erection of Schools | Enfield School Board | G. E. Lawrence | do. |
| *Foundation, &c. Works at Rugby | Willans & Robinson, Lim. | *Official* | do. |
| *Painting, &c. Works at Infirmary | Fulham Union | do. | do. |
| *Laying Underground Telephone Pipes, &c. | Manchester Corp. | do. | May 31 |
| *Sorting Office, Chiswick | Com. of H. M. Works | do. | do. |
| Four Houses, North Parade, Aberystwith | ..... | J. A. Jones | do. |
| Business Premises, High-street, Spennymoor, Durham | J. Dodshon | H. Henry | do. |
| *Excavating Trench and Laying Suction Pipe | Epsom U.D.C. | G. & F. W. Hodson | do. |
| Broken Granite and Flints | Sunbury - on - Thames U.D.C. | C. G. Mitchell | June 3 |
| Sewerage Works | Alfreton (Derbyshire) U.D.C. | W. H. Radford | do. |
| Thirty-two Cottages, Maesydderwen, Mountain Ash (Glam.) | M. Morgan | ..... | do. |
| Granite and Slag Road Metal | Spalding R.D.C. | *Official* | do. |
| *Road Works | Romford U.D.C. | do. | June 4 |
| *Two Brick and Iron Bridges | Bucks Council Council | do. | June 5 |
| *Crown Post Office, Southend | Com. of H. M Works | do. | do. |
| Paving (1,960 square yards) | Cowbridge (Glam.) T.C. | do. | do. |
| Additions to School | Tipton (Staffs.) School Board | A. Long | June 6 |
| Sea Defence Wall, North Shore | Blackpool Corp. | *Official* | June 8 |
| *Additions to Cemetery, &c. | Mansfield Burial Bd. | R. F. Vallance | June 10 |
| Reservoir | Holyhead Waterworks Co. | *Official* | do. |
| *Glazed Stoneware Pipes | Bexley U.D.C. | do. | June 12 |
| *Cast-iron Sewer Outfall, &c. | Llandudno U.D.C | E. P. Stephenson | June 17 |
| *School, Offices, Master's House, &c. | Bosham School Board | N. C. H. Nisbett | do. |
| *Fire Mains and Hydrants, Workhouse | Edmonton Union | ..... | No date |
| Bakery Premises | Accrington and Church Indus. Co-op. Soc. | Haywood & Harrison | do. |
| Pair of Cottages, Brown-street, Maaborough, Yorks | J. M. Clark | ..... | do. |
| Shops and Offices, Westgate, and Bury-street, Bradford, Yorks | ..... | J. Jackson | do. |
| Presbyterian Church, Caerleon-road, Newport, Mon. | ..... | Graham, Hitchcox, & Co. | do. |
| House, Lindow-street, Frizington, Cumberland | ..... | J. Moffat | do. |
| Eight Houses, Midland-road, Swadlincote | ..... | T. W. Yardley | do. |

## PUBLIC APPOINTMENTS.

| Nature of Appointment. | By whom Advertised. | Salary. | Applications to be in. |
|---|---|---|---|
| *Foreman Brickmaker, Lagos, West Coast of Africa | Crown Agents for Colonies | 22*l.* a month, &c. | May 20 |
| *Surveyor | Whitechapel Bd. of W. | 400*l.* &c. | May 22 |
| *Clerk of Works | Langport R.D.C. | ..... | do. |
| *Clerk of Works | Hull Corp. | 3*l.* | May 25 |
| *Clerk of Works | Southend-on-Sea Corp. | 2*l.* | May 28 |
| *Senior Civil Engineering Assistant | Manchester Corp. | 200*l.* | May 31 |
| *Junior Civil Engineering Assistant | do. | 160*l.* | do. |

***Those marked with an asterisk (*) are advertised in this Number.*** *Competition, p.* iv. *Contracts, pp.* iv., vi., viii., *and* xx. *Public Appointments, p.* xviii.

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ALNWICK.—For repaving portion of Narrowgate-street, for the Urban District Council. Mr. Geoffrey Wilson, Town Surveyor, Green Batt, Alnwick. Quantities by Surveyor:—

| | s. d. | |
|---|---|---|
| M. Appleby | 6 8 | per sq. yard, 4 in. by 7 in. Whinstone sett paving complete. |
| M. Appleby | 4 9 | per linl. yard, 12 in. by 6 in. Ratho-hollow channelling complete. |
| John Scott, Hope House, near Alnwick* | 5 10 | per sq. yard, 4 in. by 7 in. sett paving. |
| John Scott* | 5 6 | per linl. yard, 12 in. by 6 in. Ratho-channelling. |

* Accepted.

---

ASHFORD (Kent).—For the supply of 1,420 cubic yards of granite broken to a 2-in. gauge, for the Urban District Council. Mr. Wm. Terrill, Surveyor, North-street, Ashford:—

| | |
|---|---|
| Kaltenbach & Schmitz, 46, New Broad-street, London, E.C.* | 14s. 6d. per cubic yard at L. C. D. railway station. |
| Kaltenbach & Schmitz, 46, New Broad-street, London, E.C. | 13s. 5d. per cubic yard to S. E. railway station. |

* Accepted from thirty tenders received.

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BLYTH (Northumberland).—For the execution of street works, for the Cowpen Urban District Council. Mr. Robert Grieves, surveyor, Commercial-buildings, Waterloo, Blyth:—

| | | | |
|---|---|---|---|
| G. Maughan | £1,630 11 5 | G. H. Simpson | £1,352 13 5 |
| G. Bailey | 1,478 3 3 | J. J. & J. Robson, Newcastle-on-Tyne (accepted) | 1,272 9 0 |
| J. Henderson | 1,441 10 9 | J. Wardlaw | 1,100 0 0 |
| M. Appleby | 1,389 2 9 | | |
| T. Callaghan | 1,375 0 0 | | |

*For Supplying about 150 Cast-Iron Street Lamp Columns.*

| | s. d. | |
|---|---|---|
| Douglas Bros., Blaydon-on-Tyne | 16 6 | each ordinary column. |
| " " " " | 19 0 | each meter lamp column. |

---

BRIDLINGTON (Yorks.).—For the erection of dwelling house and premises, St. John's Walk, for Mr. J. Siddall. Mr. J. Earnshaw, architect, Carlton House, Bridlington Quay:—

| | | | |
|---|---|---|---|
| J. H. Hudson | £379 | F. Postill | £345 |
| J. Rennard | 345 | J. Sawdon (accepted) | 285 |

[All of Bridlington Quay.]

---

BRIDLINGTON (Yorks.).—For the erection of corn-mill or Mr. W. T. Lowson. Mr. J. Earnshaw, architect, Bridlington Quay:—

| | | | |
|---|---|---|---|
| Postill & Musk | £559 0 | J. Sawdon | £490 0 |
| J. Rennard | 499 0 | T. Gray (accepted) | 457 16 |

[All of Bridlington Quay.]

---

BRIGHTON.—For the extension of electricity-generating station, North-road, for the Corporation. Mr. Francis J. C. May, C.E., Town Hall, Brighton:—

| | | | |
|---|---|---|---|
| Wilkinson Bros. | £14,573 | J. Longley & Co. | £12,169 |
| B. Coolse & Co. | 14,300 | W. A. Field & Co., 20, Preston-street, Brighton (accepted) | 12,086 |
| P. Peters & Son | 13,045 | | |
| J. Parsons & Son | 12,865 | | |

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BRISTOL.—For the erection of a shop and altering of two adjoining houses at Kingsdown, Bristol, for Mr. E. S. Crabbe. Mr. W. Holbrow, surveyor, 6, St. Stephen's Avenue, Bristol:—

| | | | |
|---|---|---|---|
| Forse | £870 | Prosser | £595 |
| Love & Waite | 825 | H. Rossiter | 490 |
| E. Love | 800 | Locke (accepted) | 480 |

---

CAMELFORD (Cornwall).—For additions, &c., to the United Methodist Free Church. Messrs. Wise & Wise, architects, Launceston:—

| | | | |
|---|---|---|---|
| W. L. Doidge | £680 | Hooper & Dennis* | £645 |
| Lobb & Richards | 650 | | |

* Accepted.

---

CHICHESTER.—For proposed asylum at Chichester, Sussex, for the West Sussex County Council. Sir Arthur W. Blomfield & Sons, architects, 6, Montague-place, Montague-square, London, W. Messrs. Gardiner, Son, & Theobald, quantity surveyors, Great Russell-street, Bedford-square, London:—

| | | | |
|---|---|---|---|
| Holland & Hannen | £149,500 | Stephens, Bastow, & Co., Ltd. | £137,580 |
| Woodward & Co. | 149,400 | G. H. & A. Bywaters & Sons | 136,950 |
| Shillitoe & Sons | 145,000 | Goddard & Sons | 136,500 |
| Macey & Sons | 145,000 | Foster & Dicksee | 135,000 |
| Dove Bros. | 143,995 | J. Dorey & Co. | 129,892 |
| Colls & Sons | 141,888 | Rudd & Sons | 129,739 |
| Cornish & Gayner | 138,041 | Longley & Co.* | 114,669 |
| J. Thompson | 137,800 | | |

* Accepted.

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COLCHESTER.—For the erection of buildings on the Lion and Field Estate, Rowhedge. Mr. G. H. Page, architect, Trinity Chambers, Colchester:—

| | | | |
|---|---|---|---|
| J. Warricker | £420 0 | G. Rackham | £358 0 |
| F. Dupont | 365 0 | A. Diss | 350 0 |
| G. Blaice | 359 10 | | |

[All of Colchester.]

---

DEVONPORT.—For alterations to the front of the Royal Sailors' Home, Duke-street. Mr. Henry G. Luff, architect, 64, Chapel-street, Devonport:—

| | | | |
|---|---|---|---|
| G. H. Smith & Son | £342 15 | J. Healy & Son* | £333 0 |
| Wm. Littleton | 339 10 | | |

* Accepted.

[All of Devonport.]

---

DEWSBURY.—For the erection of two lodges, Crownest Park, for the Corporation. Mr. Hy. C. Marks, Borough Engineer, Town Hall, Dewsbury. Quantities by Engineer:—

| | | | |
|---|---|---|---|
| W. Scott & Sons | £990 10 8 | W. H. Clegg | £834 9 6 |
| E. Chadwick & Sons | 911 19 2 | Crabtree & Denton* | 763 3 0 |
| S. Armitage & Sons | 840 4 4 | | |

* Accepted.

[All of Dewsbury.]

---

DOVER.—For the completion of Vale View-road, for the Town Council:—

| | | | |
|---|---|---|---|
| A. Matthews | £184 16 11 | Austen & Lewis, Dover* | £151 7 0 |
| Herbert Stiff | 155 0 0 | | |

*Lavatories and Urinals in Granville-gardens.*

| | | | |
|---|---|---|---|
| J. J. Hall | £1,075 | Herbert Stiff | £945 |
| Austen & Lewis | 1,063 | H. Richardson | 870 |
| Hayward & Paramor | 1,043 | A. Matthews, Dover* | 870 |
| G. Lewis & Sons | 960 | | |

* Accepted.

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GUILDFORD.—For the erection of oak fence at the extension to Guildford Cemetery. Mr. A. J. Sturges, architect, High-street Chambers, Guildford:—

| | | | |
|---|---|---|---|
| E. & A. Miles | £329 2 8 | Taylor & Brooker | £290 0 0 |
| Murray Marshall | 319 0 0 | Stanley Ellis, Guildford (accepted) | 274 0 0 |
| George Lee | 293 4 6 | | |

---

GUILDFORD.—For the erection of a common lodging-house, Mill-lane, Guildford, for Mr. W. Tilbury. Mr. A. J. Sturges, architect, High-street Chambers, Guildford:—

| | | | |
|---|---|---|---|
| Thomas Kingerlee | £1,770 | Robert Smith | £1,646 |
| Smith & Sons | 1,660 | Higlett & Hammond | 1,663 |
| A. Strudwick | 1,656 | P. C. May | 1,420 |
| A. Johnson | 1,649 | Tribe & Robinson, Guildford* | 1,414 |
| Stanley Ellis | 1,647 | | |

* Accepted subject to modification.

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GUILDFORD.—For painting, &c., Cromwell House, Commercial-road, Guildford, for Mr. May Colebrooke. Mr. A. J. Sturges, architect, Guildford:—

| | | | |
|---|---|---|---|
| Higlett & Hammond | £102 | Robert Wood | £91 |
| P. C. May | 97 | Stanley Ellis (accepted) | 87 |

HAVANT (Hants).—For the erection of school buildings for the School Board. Mr. A. E. Stallard, architect, West-street, Havant. Quantities by the architect:—

| | | | |
|---|---|---|---|
| W. R. Light & Son | £4,264 | P. Peters & Son | £3,890 |
| L. H. Corke | 4,180 | W. J. Perkins, St. Paul's-road, Southsea* | 3,549 |
| Clark & Son | 4,141 | | |

* Accepted, subject to approval of Education Department.

HELSBY.—Accepted for the erection of a new house, Helsby Hill, Cheshire, for Mr. Thomas Robinson. Samuel Davies, architect, Runcorn and Frodsham:—
Beckett & Co., Hartford ..... £695

HEREFORD.—For the erection of a house on the Ryelands for Mr. James Bailey. Mr. Ernest G. Davies, architect, 6, St. John-st., Hereford:—

| | | | |
|---|---|---|---|
| R. Taylor | £300 | J. Hills* | £280 |

* Accepted.

HEREFORD.—Accepted for additions to house in Stanhope-street, for Mr. C. Morris. Mr. Ernest G. Davies, architect, 6, St. John-street, Hereford:—
Ganderton & Pritchard ..... £250

HEREFORD.—For the erection of three houses in Canon Moor-road. Mr. Ernest G. Davies, architect, 6, St. John-street, Hereford:—
J. Mason ..... £480

HEREFORD.—Accepted at a schedule of prices for the erection of two houses in Tower-road, for Mr. Wm. Barber. Mr. Ernest G. Davies, architect, 6, St. John-street, Hereford:—
J. Morris & Son, Lugwardine.

HOVE (Sussex).—For the supply of granite road-metal (1,000 tons), for the Urban District Council. Mr. H. Scott, Town Surveyor, Town Hall, Hove:—

| | Per ton. s. | d. | |
|---|---|---|---|
| A. & F. Manuelle, London | 11 | 6 | 1½-in. broken Guernsey granite. |
| ,, ,, ,, | 8 | 3 | spalls. |

LANCASTER.—Accepted for additions to hospital at the workhouse. Mr. J. Parkinson, architect, 67, Church-street, Lancaster. Quantities by architect:—

| | |
|---|---|
| *Masonry.*—W. Harrison | £2,479 0 0 |
| *Joinery.*—J. Acton | 790 0 0 |
| *Slating and Plastering.*—T. Till | 531 17 6 |
| *Plumbing and Glazing.*—Harrison & Moser | 367 12 5 |
| *Painting.*—Eaton & Bulfield | 77 17 0 |

[All of Lancaster.]

LEEDS.—Accepted for new house for doctor in High-street, Garyton, Leeds. Mr. J. W. Broughton, architect. Quantities by architect:—

| | |
|---|---|
| *Masonry.*—T. Pickles, Skipton<br>*Carpentry.*—F. Roberts, Garyton<br>*Slating.*—Rd. Thornton & Sons, Skipton<br>*Plumbing, Painting, and Glazing.*—G. H. Mason, Skipton<br>*Plastering.*—T. Hudson, Skipton | £712 18 5 |

LITTLE BRICKHILL.—For additions to the Manor House, for Major A. Finlay, J.P. Mr. J. T. Lawrence, architect and surveyor, Leighton Buzzard, Beds. Quantities by the architect:—

| | | | |
|---|---|---|---|
| T. H. Coleman | £1,575 | D. Cook & Sons | £1,444 |
| H. Edwards & Sons | 1,473 | S. Foster, Bedford* | 1,392 |
| G. Garside & Son | 1,405 | | |

* Accepted.

LLANTRISANT (Wales).—For levelling, forming, &c., Hendreforgan-road, for the Rural District Council. Mr. J. Griffiths, surveyor, Porth-house, Porth:—

| | | | |
|---|---|---|---|
| David Evans & Co. | £756 2 6 | Thos. Davies | £399 17 6 |
| Barnes & Chaplin | 510 16 8 | W. Jenkins, Cilfynydd Inn, Pontypridd* | 330 10 0 |
| Lemuel Evans | 497 17 6 | | |
| Morgan Morgan | 455 5 5 | | |

* Accepted.

LONDON.—For new premises, for the Linoleum Manufacturing Co., Ltd., Old Bailey. Messrs. Searle & Hayes, architects:—

| | General. | Basement. Sub-Structure. | Total. |
|---|---|---|---|
| Colls & Sons | £10,898 | £1,130 | £12,028 |
| Higgs & Hill | 10,584 | 1,124 | 11,708 |
| Lascelles & Co. | 9,993 | 1,025 | 11,018 |
| Holliday & Greenwood | 9,877 | 1,077 | 10,954 |
| Ashby & Horner | 9,832 | 1,038 | 10,870 |
| J. Greenwood | 9,794 | 986 | 10,780 |
| F. & H. F. Higgs | 9,589 | 986 | 10,575 |
| Patman & Fotheringham | 9,140 | 871 | 10,011 |

LONDON.—For fitting-up luncheon bar at the "Florence" Tavern, Florence-street, Islington, for Mr. F. Mills. Mr. F. J. Sturdy, architect, London, E.C.:—

| | | | |
|---|---|---|---|
| Coombs | £585 | Hosking | £459 |
| Leighton & Highcock | 550 | Norton | 423 |
| Ford | 468 | Wheeler | 393 |
| Faulkner | 483 | | |

LONDON.—For rebuilding the "Old Fountain" Tavern, Catherine-street, Strand, W.C., for Mr. J. Hewitt. Mr. W. M. Yetts, architect, 44, Finsbury-pavement, London, E.C.:—

| | Building. | Tenant's Fixtures. | Total. |
|---|---|---|---|
| W. Downes | £1,476 | £230 | £1,695 |
| Lawrence | 1,420 | 230 | 1,650 |
| Gladding | 1,388 | 233 | 1,621 |
| Hosking | 1,377 | 222 | 1,599 |
| Faulkner | 1,352 | 219 | 1,571 |

LONDON.—For staff quarters at South Wharf, Rotherhithe, for the Metropolitan Asylums Board. Mr. T. W. Aldwinckle, Architect. Quantities by Mr. W. T. Farthing:—

| | | | |
|---|---|---|---|
| J. Bullers | £10,400 0 0 | Kirk, Knight, & Co. | £9,066 0 0 |
| E. Proctor | 10,300 0 0 | Kirk & Randall | 8,649 0 0 |
| H. Wall & Co. | 9,600 0 0 | Girling & Coe | 8,590 0 0 |
| T. White & Son | 9,482 11 9 | G. Godson & Sons, Pembroke Works, Granville-road, Kilburn, N.W.* | 8,317 0 0 |
| W. Johnson & Co., Ltd. | 9,460 0 0 | | |
| F. & H. F. Higgs | 9,410 0 0 | | |
| G. E. Todd | 9,279 0 0 | | |

* Accepted, less £906, by omission of Medical Officer's Residence.

LONDON.—For erection of new staff block for domestics, and alterations and additions to the male staff block and ambulance nurses block at the Western Hospital, Seagrave-road, Fulham, for the Metropolitan Asylums Board. Messrs. A. & C. Harston, Architects, 15, Leadenhall-street, E.C. Quantities by Mr. J. W. Stevens:—

| | | | |
|---|---|---|---|
| Windebank & Co. | £9,040 | Leslie & Co. | £9,023 |
| Shillitoe & Sons | 9,857 | C. Dearing & Sons | 8,750 |
| E. Lawrance & Sons | 9,677 | W. Johnson & Co., Ltd., Wandsworth Common* | 8,490 |
| C. Miskin | 9,400 | | |
| Holliday & Greenwood | 9,149 | | |

* Accepted.

LONDON.—For rebuilding the "Red Cow" public-house, No. 67, Mile End-road, E., for Messrs. Sutton, Carden, & Co. Mr. Edward Monson, architect, Acton Vale:—

| | | | |
|---|---|---|---|
| George Lyford | £4,750 | T. E. Mitchell | £4,328 |
| Godson & Sons | 4,549 | Pattinson Bros., 5, Whitehall, S.W.* | 4,292 |
| Wilkinson Bros. | 4,500 | | |
| G. Wade | 4,489 | | |

* Accepted.

LONDON.—For alterations and repairs, Nos. 90 and 92, High-street, Kingsland, N., for Mr. R. Tobitt. Mr. J. William Stevens, architect, 21, New Bridge-street:—

| | | | |
|---|---|---|---|
| Ballard | £487 2 | Robson | £393 0 |
| Curvie | 476 0 | Wade (accepted) | 359 15 |
| Hutchings | 448 0 | | |

LONDON.—For bakery and stabling, Gordon-road, Peckham, for Dr. Hague. Mr. J. William Stevens, architect, 21, New Bridge-street:—

| | | | |
|---|---|---|---|
| Beckey | £528 | Parker | £459 |
| White | 493 | McLoughlin (accepted) | 444 |
| Robson | 462 | | |

LONDON.—For rebuilding premises, No. 10, Poland-street, W., for Mr. Rutherford. Messrs. R. H. & H. Kerr, architects, Berwick House, 139, Oxford-street, W.:—

| | | | |
|---|---|---|---|
| Bywaters | £4,122 | Nightingale | £3,855 |
| Carter | 3,977 | Nye | 3,868 |
| Perry | 3,933 | Vernall, Danes, & Co., 12, Albany-street, N.W.* | 3,675 |
| McCormick | 3,855 | | |

* Accepted.

LONDON.—For a club-house and institute, Plumstead, for the Amalgamated Engineers Club and Institute Society, Limited. Mr. T. J. Young, architect, Woolwich. Quantities by Mr. C. F. Poland, 9, Great James-street, Bedford-row, W.C.:—

| | | | |
|---|---|---|---|
| J. Chapman | £1,847 | J. W. Cuddington | £1,730 |
| Brixton Co.-op. Builders | 1,795 | Arthur J. Ware, Park-road, Plumstead* | 1,705 |
| G. Proctor | 1,745 | | |

* Accepted.

LONDON.—For paving Colyton and Forest Hill-road, for the Camberwell Vestry. Mr. O. S. Brown, Surveyor, Vestry Hall, Camberwell. Quantities by the Surveyor:—

| | | | |
|---|---|---|---|
| Limmer Asphalte Paving Co. | £314 1 7 | Brunswick Rock Asphalte Co. | £187 11 3 |
| French Asphalte Co. | 208 6 0 | J. Smart | 179 6 8 |
| Val de Travers Asphalte Co. | 205 10 0 | Hobman & Co. | 176 1 9 |
| T. Faldo | 190 11 7 | Asphaltic Limestone Concrete Co.* | 169 12 7½ |

* Recommended for acceptance.

LONDON.—For the erection of the third section of Artisan dwellings, for the trustees of the Lambeth Hayles Charity. Messrs. Waring & Nicholson, architects and surveyors, 55, Parliament-street, Westminster, S.W.:—

| | | | |
|---|---|---|---|
| Higgs & Hill | £9,384 | C. Ansell | £8,235 |
| B. E. Nightingale | 8,790 | J. F. Ford | 8,178 |
| John Mills, junr. | 8,345 | W. Smith | 8,111 |
| Martin, Wells & Co. | 8,300 | | |

LONDON.—Accepted for alterations, &c., to warehouse at Specks, Fields, E. Mr. G. A. Hall, architect:—
F. C. Hoskins, Westminster ..... £255 9

LONDON.—Accepted for alterations and new party-wall, &c., at Westrup's Flour Mill, Westminster. Mr. H. Jameson Davis, architect:—
F. C. Hoskins, Westminster ..... £293 14 6
Other work accepted at schedule of prices.

LONDON.—For providing pewtering-work, beer-engines, &c., at the "Star and Windmill" Public-house, Bermondsey New-road, for Messrs. Flower & Sons, brewers. Messrs. Bedle & Meyers, architects, London Bridge:—

| | | | |
|---|---|---|---|
| Warne & Co. | £109 0 | H. & F. Warne* | £91 5 |
| Davidson | 94 10 | | |

* Accepted.

LONDON.—For shops and flats at Electric Avenue, Brixton, S.W., for Mr. John Fyfe. Mr. W. H. Gibbs, architect, 5, West Kensington-terrace, W. Quantities by Messrs. Jno. Waldram & Son, 17, Buckingham-street, Adelphi, W.C.:—

| | | | |
|---|---|---|---|
| Higgs & Hill | £12,940 | Dearing & Son | £11,750 |
| Chas. Wall | 12,300 | B. E. Nightingale | 11,638 |
| Rider & Son | 12,148 | Holloway, Bros. | 11,633 |
| Landsdown & Co. | 11,989 | Johnson & Co., Ltd. | 11,500 |
| Clarke & Bracey | 11,987 | Grover & Sons | 11,378 |
| Dove, Brothers | 11,938 | Higgs & Higgs | 11,187 |

[Quantity Surveyor's estimate, £11,985.]

LONDON.—For laying 1¼ in. pitch-pine wood block flooring in the receiving wards of Poland-street Workhouse, W., for the Guardians of the Westminster Union. Messrs. J. Waldram & Son, surveyors, 17, Buckingham-street, Charing Cross, W.C.:—

| | Per superficial yard. s. | d. |
|---|---|---|
| Gregory & Co. | 6 | 0 |
| Roger L. Lowe | 5 | 9 |
| Charteris & Longley | 5 | 9 |
| Acme Wood Flooring Co., Ltd. | 5 | 6 |
| The Wood Block Flooring Co., Queen Victoria-street, E.C. * (accepted) | 5 | 6 |

LONDON.—For rebuilding the west block of the Workhouse, Poland-street, W., for the Guardians of the Westminster Union. Messrs. John Waldram & Son, engineers and surveyors, 17, Buckingham-street, Charing Cross, W.C. Quantities supplied:—

| | | | |
|---|---|---|---|
| Shillitoe & Son | £12,300 | Thos. Nicholson | £10,725 |
| A. Kellett | 11,631 | Geo. Neal | 10,599 |
| F. & F. H. Higgs | 11,200 | Lansdown & Co. | 10,497 |
| Dearing & Son | 11,170 | Henry Flint | 10,487 |
| McCormick & Sons | 10,987 | Johnson, Ltd. | 10,470 |
| Perry & Co. | 10,800 | Grover & Son | 10,448 |
| B. E. Nightingale | 10,675 | Johnson & Manners | 10,390 |
| Walter Wallis | 10,825 | | |

[Surveyor's estimate £10,496.]

LUTTERWORTH.—Accepted for the supply of granite, about 3,000 tons of 1½ in., for the Rural District Council. Mr. Thos. Henry, surveyor, Leire, Lutterworth:—

| | Per ton. s. | d. | |
|---|---|---|---|
| Enderby and Stoney Stanton Granite Co., Narboro' | 4 | 5 | at Quarry. |
| Mount Sorrel Granite Co., Mount Sorrel, near Loughboro' | 7 | 0 | at Kilby Bridge Wharf. |
| A. E. Marston, Enderby | 6 | 6 | at Countersthorpe Railway Station. |
| Enderby and Stoney Stanton Granite Co., Narboro' | 6 | 3 | at Broughton Astley Railway Station. |
| Griff Granite Co., Griff, near Nuneaton | 6 | 0 | at Rugby Wharf. |
| ,, ,, | 6 | 6 | at Yelvertoft Station. |
| ,, ,, | 6 | 6 | at Welford Station. |
| Enderby and Stoney Stanton Granite Co., Narboro' | 5 | 0 | at Narboro' Railway Station. |

LYNTON (Devon).—For the construction of sea-wall and esplanade extension, Lynmouth, for the Urban District Council. Mr. G. C. Smyth-Richards, surveyor, Barnstaple. Quantities by the surveyor:—

| | | | |
|---|---|---|---|
| J. B. Morse | £3,718 0 0 | Jones Bros., Lynton* | £2,248 0 0 |
| G. H. Wilkins | 3,442 7 5 | W. Parkin | 2,224 12 6 |

* Accepted.

MANSFIELD (Notts).—For additions to workhouse for the Union Guardians. Mr. R. Frank Vallance, architect, Mansfield. Quantities by architect:—

| | | | |
|---|---|---|---|
| S. & G. Frisby | £2,677 | A. G. Bell | £2,389 |
| J. W. Fisher | 2,555 | W. E. Shaw | 2,370 |
| J. H. Vickers | 2,516 | F. J. Price, Nottingham* | 2,336 |
| John Greenwood | 2,431 | | |

* Accepted.

MANSFIELD (Notts.).—For sewering Bancroft-lane, for the Corporation. Mr. R. Frank Vallance, Borough Surveyor, Mansfield. Quantities by Surveyor:—

| | | | |
|---|---|---|---|
| J. Greenwood | £379 0 | J. Bradley | £244 0 |
| J. W. Fisher | 290 12 | W. A. Vallance, Mansfield* | 225 0 |

* Accepted.

MORECAMBE.—Accepted for the execution of street-works (West-street, &c.), for the Urban District Council. Mr. John Bond, Surveyor, Council Offices, Morecambe-street, Morecambe:—
Richard Escolme, Handley-road, Blackpool—

| | |
|---|---|
| West-street | £505 9 6 |
| Devonshire-road | 492 7 6 |
| Regent-road | 852 12 4 |
| Clarendon-road | 442 7 8 |
| Back street on east side of Albert-road from Claremont-road to J. R. Birkett's property | 56 14 0 |
| Parliament-street | 354 11 8 |

Thomas Dobson, Cross-street, Morecambe—

| | |
|---|---|
| Back street between Beecham-street and Oxford-street | 68 11 3 |

Joe Johnson, contractor, Aldcliffe-lane, Lancaster—

| | |
|---|---|
| Westminster-road | 345 0 10 |
| King-street | 203 3 4 |
| Beecham-street | 196 6 6 |
| Cross-street | 433 9 6 |
| Back street west of Cross-street | 131 16 8 |
| Bridge-road | 312 9 2 |
| Back street on north side of Claremont-road | 42 8 3 |
| Back street on east side of Albert-road | 59 12 6 |
| Oxford-street | 230 12 6 |

RAYLEIGH (Essex).—For the erection of house and stable. Mr. James Thompson, architect, Southend-on-Sea:—

| | House. | | | Stable. | |
|---|---|---|---|---|---|
| J. Rayner | £2,560 | 0 | 0 | £495 | 0 |
| M. Johns | 2,468 | 6 | 6 | 526 | 0 |
| J. S. Kimberley | 2,275 | 0 | 0 | 429 | 0 |
| White & Son | 2,260 | 0 | 0 | 414 | 0 |
| Maxey & Badcock | 2,190 | 0 | 0 | 420 | 0 |
| C. E. Orfeur | 2,180 | 0 | 0 | 390 | 0 |
| W. Steward | 2,147 | 0 | 0 | 429 | 0 |
| Cornish & Gayner | 2,139 | 0 | 0 | 394 | 10 |
| S. Hordan | 2,122 | 0 | 0 | 398 | 0 |
| Girling & Coe | 2,130 | 0 | 0 | 370 | 0 |
| F. Dupont | 2,080 | 0 | 0 | 376 | 0 |
| J. Brown | 1,947 | 0 | 0 | 390 | 0 |

ROSS (Herefordshire).—For the erection of a "villa residence at Ashfield, for Mrs Hughes. Mr. Ernest G. Davies, architect, 6, St. John-street, Hereford:—
J. Hills ..... £585 | R. Taylor (accepted) ..... £580

RUABON (N. Wales).—For additions to Grammar-school buildings, for the Governors. Quantities by Mr. J. D. Denny, Llangollen:—

| | | | |
|---|---|---|---|
| E. & R. Owen Jones | £1,891 14 6 | Jenkins & Jones, Johnstown, Ruabon* | £1,569 0 0 |
| Robert Hopley | 1,750 0 0 | Bradley & Lloyd | 1,475 0 0 |
| A. Roper | 1,710 0 0 | | |
| J. Gethin | 1,688 0 0 | | |
| W. Samuels | 1,649 0 0 | | |

* Accepted.

RUNCORN.—Accepted for the erection of new house, Weston-road, for Mr. Thomas Handley, J.P. Mr. Samuel Davies, architect, Runcorn and Frodsham:—
W. Farrell & Son, Runcorn ..... £740

RUSHDEN (Northants.).—For the erection of a shoe factory Station-road, for Mr. H. Perkins. Mr. H. Adnitt, architect, Harborough-road, Rushden. Quantities by the architect:—

| | | | |
|---|---|---|---|
| H. Sparrow | £1,080 | R. Marriott | £1,025 |
| Whittington & Tomlin | 1,079 | W. T. Whitbread | 1,022 |
| C. Bayes & Son | 1,075 | Hacksley Bros., Wellingborough (accepted) | 997 |
| T. Wilmott, junr. | 1,054 | | |
| T. & C. Bernil | 1,047 | | |

RUSHDEN (Northants.).—For the erection of a house and shop, High-street, for Mr. A. C. Ashby. Mr. H. Adnitt, architect, Harboro-road, Rushden. Quantities by the architect:—

| | | | |
|---|---|---|---|
| H. Sparrow | £1,380 | Hacksley, Bros. | £1,220 |
| T. Swindall | 1,320 | H. C. Bernil | 1,175 |
| R. Marriott | 1,236 | Whittington & Tomlin | 1,170 |
| T. Wilmott, junr., Rushden (accepted) | 1,235 | W. T. Whitbread | 1,112 |

ST. GEORGE (Glos.)—For the erection of class-rooms, &c., at the Whitehall Schools, for the School Board. Mr. J. Mackay, architect, Kingswood, near Bristol. Quantities by the architect:—

| | | | |
|---|---|---|---|
| Fred. Martin | £1,527 3 1 | J. Browing | £1,340 0 0 |
| W. J. Tanner | 1,445 0 0 | G. Downs | 1,295 0 0 |
| H. A. Forse | 1,390 0 0 | J. Wiltshire | 1,281 0 0 |
| G. H. Wilkins | 1,384 0 0 | Love & Waite, Backfield, St. Paul's* | 1,200 0 0 |
| C. A. Hagis | 1,374 0 0 | | |
| G. Humphries | 1,370 0 0 | | |

* Accepted.

SANDERSTEAD.—For the erection of a villa-residence at Sanderstead, Surrey. Mr. Frank E. Smee, architect, 12, West Smithfield:—

| | Complete Scheme. | Reduced Scheme. |
|---|---|---|
| J. Smith & Son | £1,269 | — |
| Marriage & Co. | 1,122 | £1,067 |
| D. Waller, jun. | 926 | 851 |
| Samuel Page, Croydon* | 891 | 805 |
| Alfred Bullock | — | 770 |

* Accepted for complete scheme.

SEVENOAKS.—For the execution of street works, Bradbourne-Park-road, for the Urban District Council. Mr. Jabez Mann, C.E., Sevenoaks:—

| | |
|---|---|
| Edward Iles | £2,199 2 3 |
| Sidney Hudson, Streatham Hill* | 2,072 14 10 |

* Accepted according to schedule of prices.

TOOTING.—Accepted for providing counter, pewtering and beer-engines at "The Gorringe Park Hotel," Tooting Junction, for Mr. E. Beer. Mr. John Calder, architect and surveyor, The Avenue, Westminster:—
H. & F. Warne (accepted) ..... £129
[No competition.]

WARRINGTON.—Accepted for the supply of road-materials for the Corporation. Mr. Thos. Longdin, Borough Surveyor, Town Hall, Warrington:—

| | Per ton. s. | d. | |
|---|---|---|---|
| Warrington Slate Co., Ltd., Warrington | 6 | 5 | for Macadam Breakers. |

WARRINGTON.—Accepted for the supply of granite cubes, &c., for the Corporation. Mr. Thos. Longdin, Borough Surveyor, Town Hall, Warrington:—

| | | | |
|---|---|---|---|
| Clare & Ridgway | £1 | 3 | 2 Granite cubes, per ton |
| Pendlebury & Co. | 3 | 3 | 6 Tiles, per 1,000 |
| Slate Co., Limited | 0 | 3 | 3 Curbs, per yd. |
| Clare & Ridgway | 0 | 3 | 4 Flags, per sq. yd. |

[All of Warrington.]

WHITEHAVEN (Cumberland).—Accepted for the execution of sewerage works, Goosebutts, for the Rural District Council. Messrs. Pickering & Crompton, C.E.'s, Whitehaven. Quantities by the Engineers:—

Edwin Moorhouse, Whitehaven.....£149 12 6

WIGAN.—For the erection of two dwelling houses, &c., Barnes-road, Skelmersdale, for Mr. Jacob Smith. Mr. Rigby, surveyor, King-street, Wigan:—

| | | | |
|---|---|---|---|
| W. M. Thompson | £630 | P. Westhead & Sons, Green-ough-street, Wigan * | £485 |
| Thos. Pennington | 560 | | |
| Thos. Riding & Son | 540 | | |

* Accepted.

WOKING.—For proposed alterations and additions to Messrs. Knight & Littleboy's premises, Woking, for Mr. William Wells. Mr. A. J. Sturges, architect, High-street Chambers, Guildford:—

| | | | |
|---|---|---|---|
| Higlett & Hammond | £522 | James Whitburn | £415 |
| P. C. May | 476 | Harris & Son* | 399 |
| Stanley Ellis | 454 | | |

* Accepted.

WOKING.—For new stabling and store for the Friary, Holroyds & Healys Brewery Co., Limited. Mr. A. J. Sturges, architect, High-street Chambers, Guildford:—

| | | | |
|---|---|---|---|
| Higlett & Hammond | £497 | Stanley Ellis | £447 |
| P. C. May | 485 | Harris & Son* | 345 |

* Accepted.

WORKINGTON (Cumberland).—For the erection of sulphate house and lime-shed, for the Gas Committee. Mr. John Johnston Engineer and Manager:—

| | | | |
|---|---|---|---|
| Jno. Stewart | £186 0 0 | Jno. Murchie* | £160 0 0 |

*Masonry and Walling.*

| | | | |
|---|---|---|---|
| Jas. Jolly | £115 18 0 | T. Brown | £78 0 0 |
| J. I. Wilson | 96 11 9 | | |

*Joinery.*

Jno. Teasdale .....£87 10 0

*Plumbing, &c.*

D. M. Walker .....£11 3 0

*Slating.*

J. Whitfield .....£39 0 0

[All of Workington.]

* Accepted.

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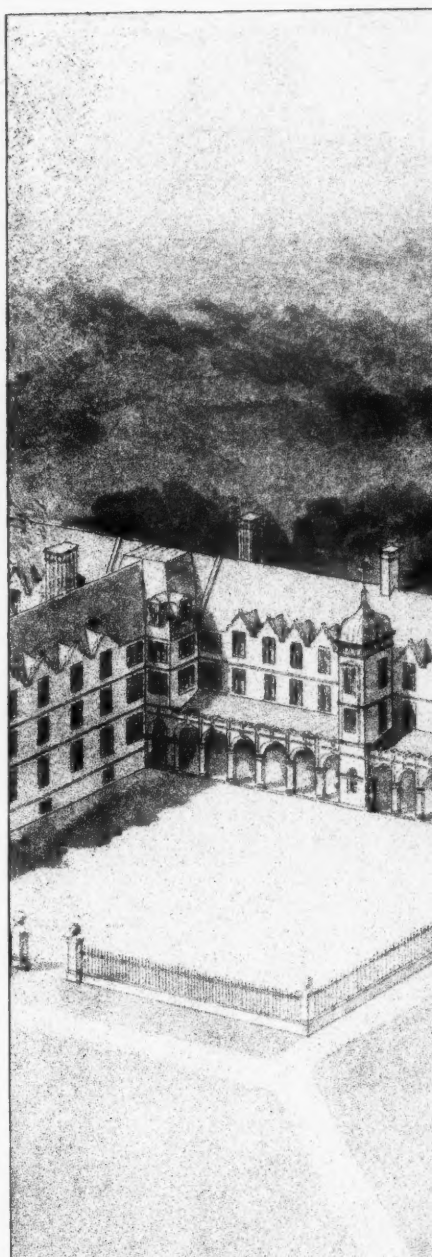

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IN 1894.

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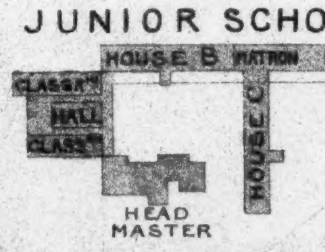
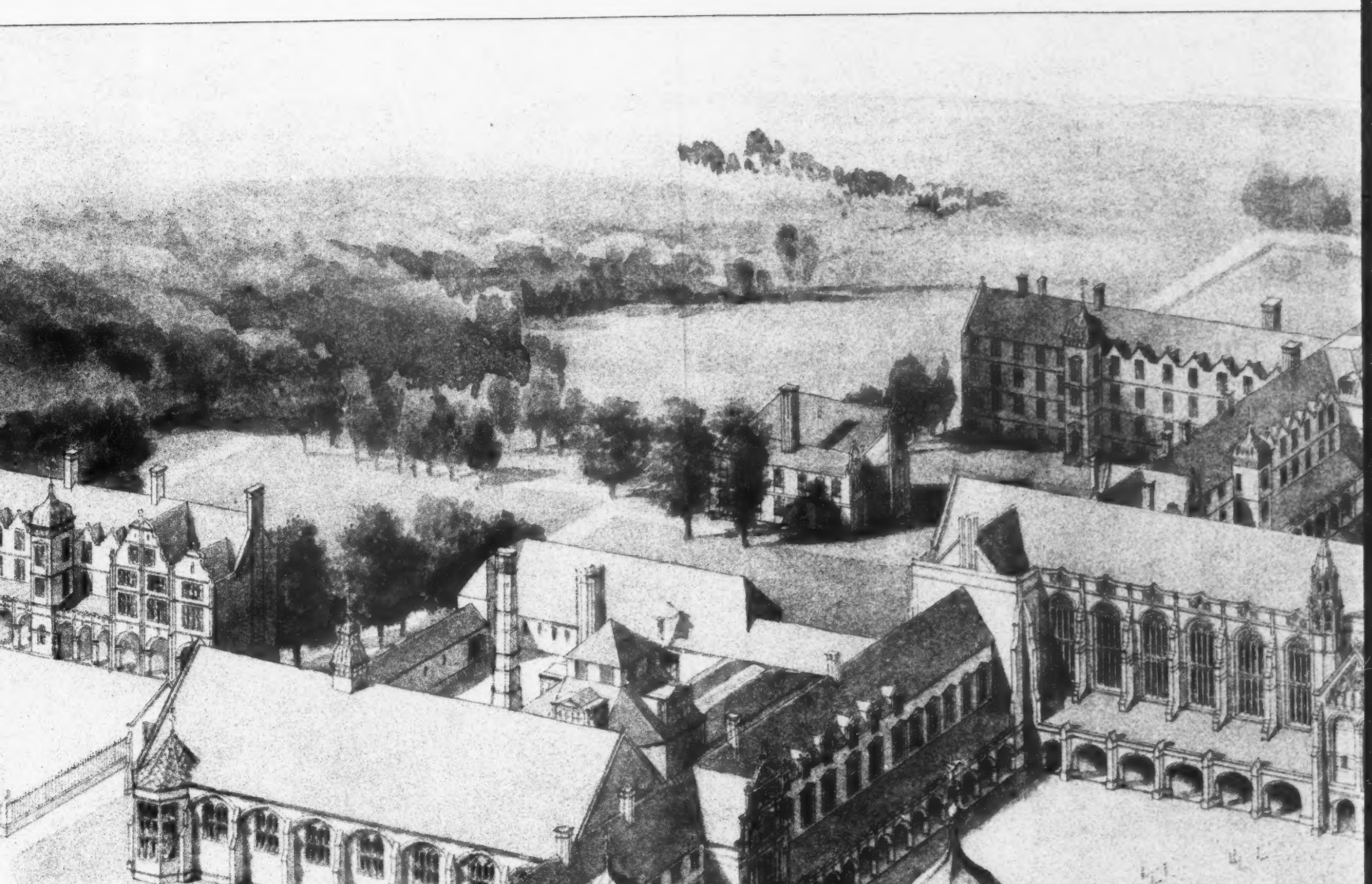
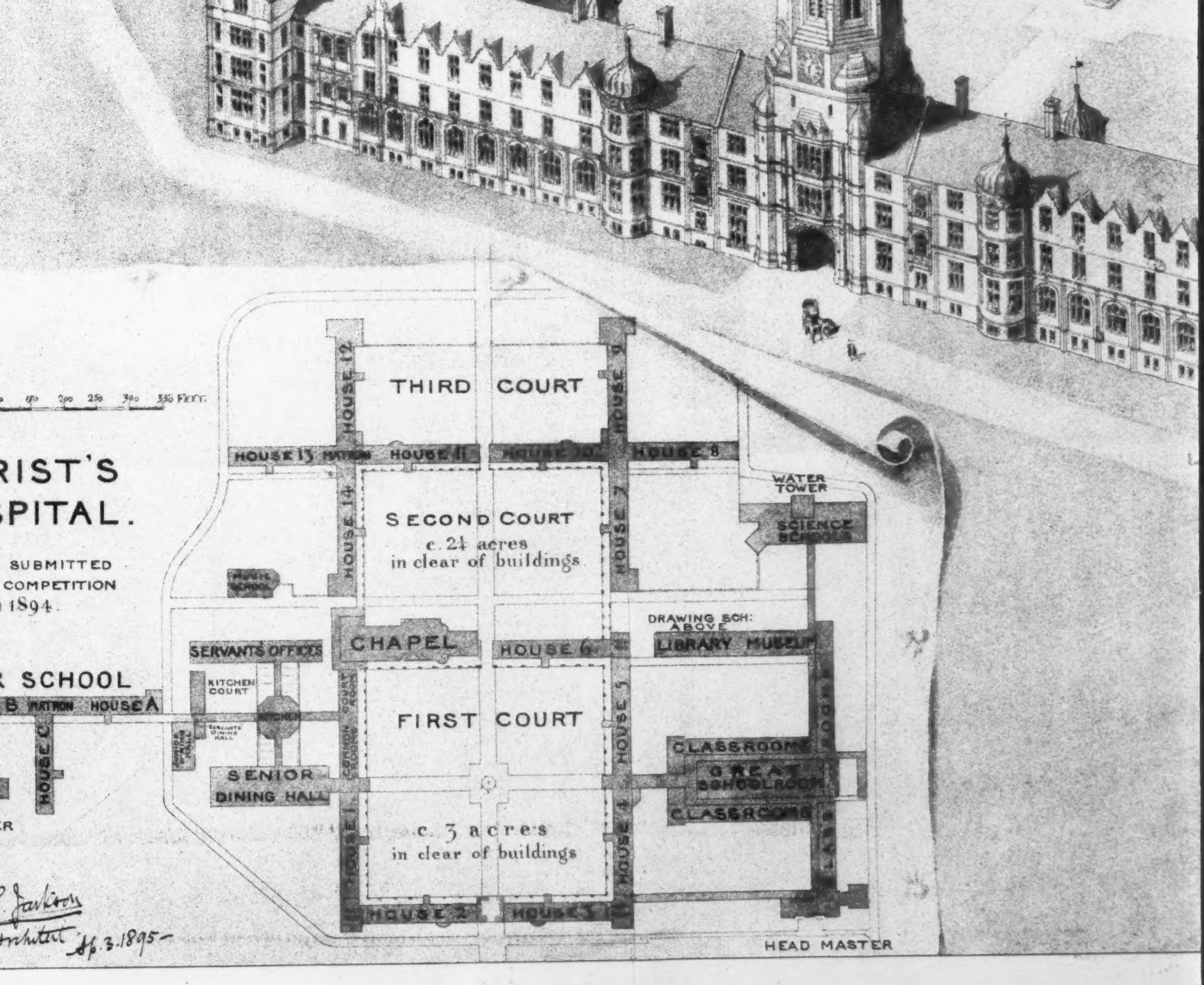



Thos. G. Jackson
Architect

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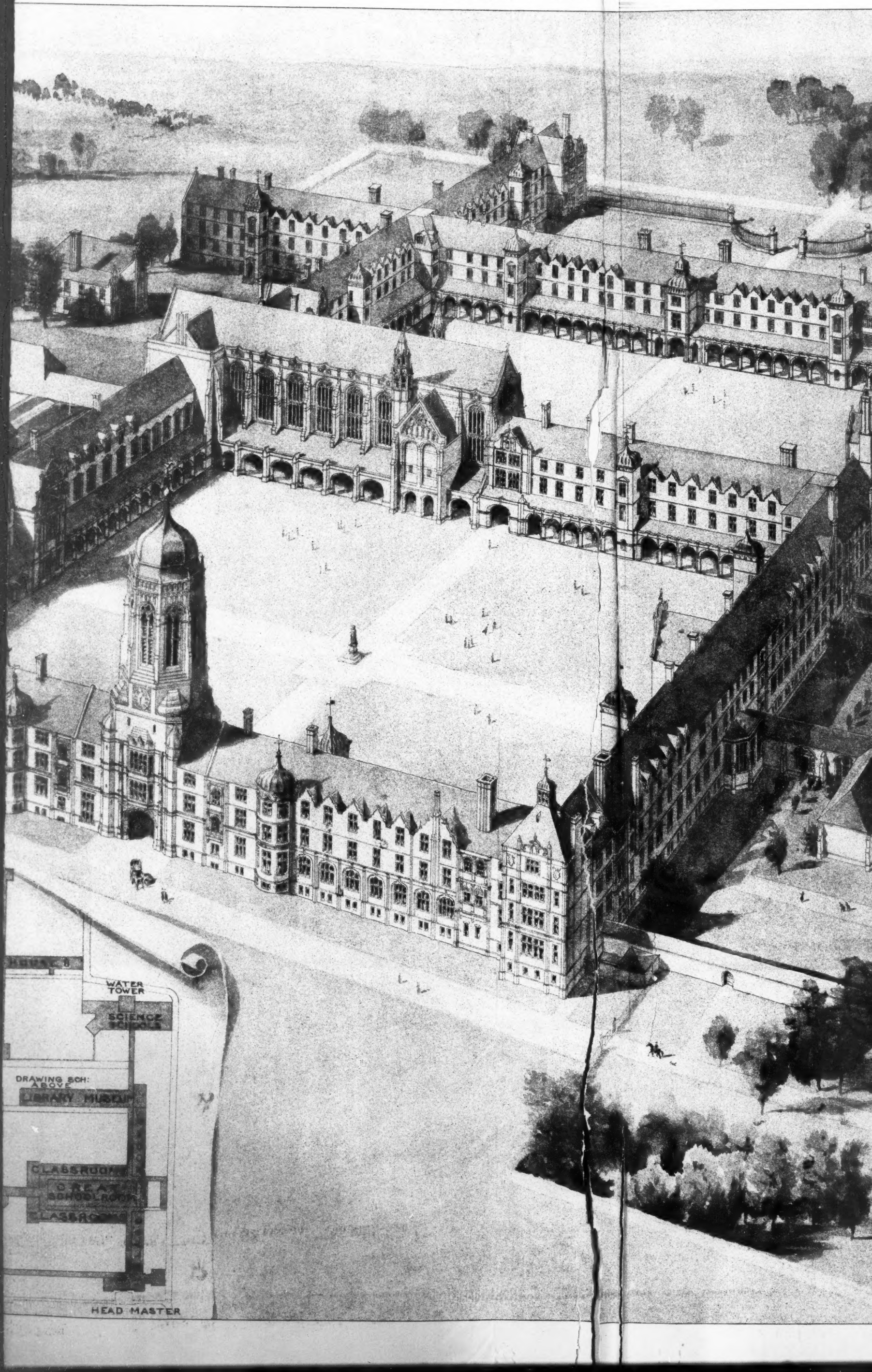
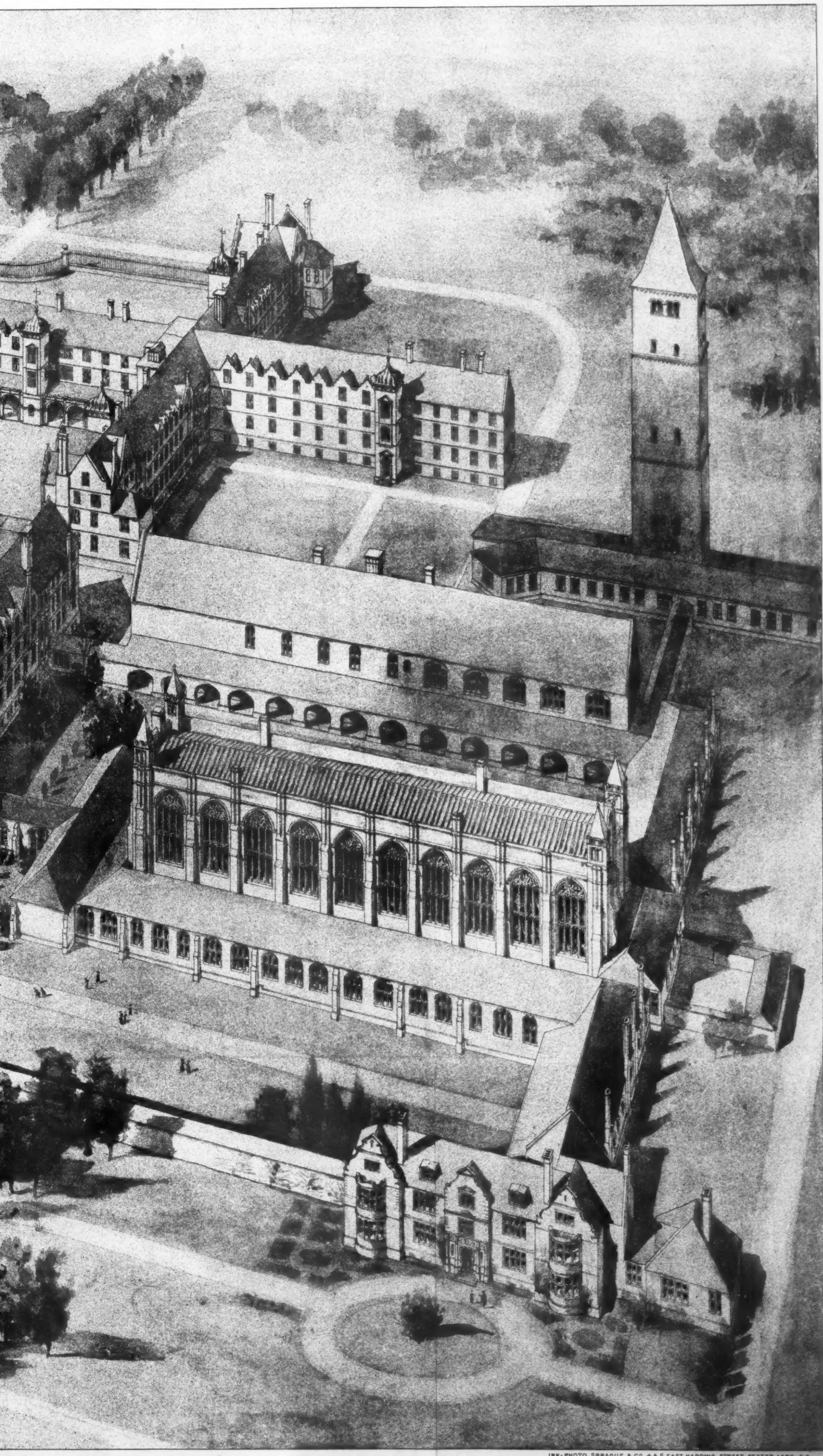
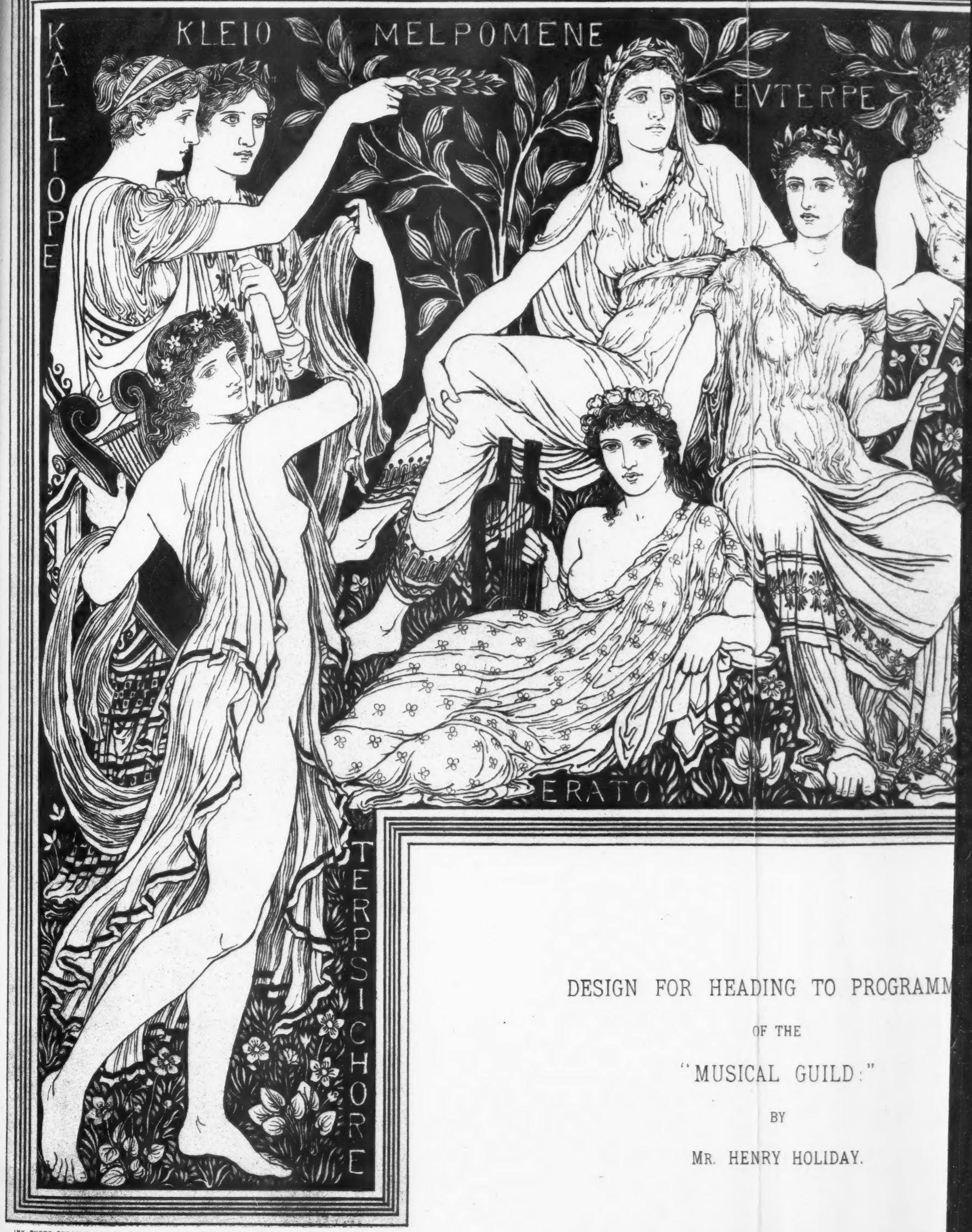
P. Jackson
Architect
Sep. 3. 1895.
THIRD COURT
HOUSE 12
HOUSE 13 MATRON
HOUSE 11
HOUSE 10
HOUSE 9
HOUSE 8
HOUSE 14
SECOND COURT
c. 24 acres
in clear of buildings
HOUSE 7
WATER TOWER
SCIENCE SCHOOLS
DRAWING SCH: ABOVE
SERVANTS OFFICES
CHAPEL
HOUSE 6
LIBRARY MUSEUM
KITCHEN COURT
KITCHEN
SERVANTS DINING HALL
COMMON ROOM
FIRST COURT
HOUSE 5
CLASSROOMS
GREAT SCHOOLROOM
SENIOR DINING HALL
CLASSROOMS
c. 3 acres
in clear of buildings
HOUSE 4
HOUSE 3
HOUSE 2
HOUSE 1
HEAD MASTER


WATER TOWER
SCIENCE
DRAWING SCH: ABOVE
LIBRARY
CLASSROOM
GREAT SCHOOLROOM
HEAD MASTER



INK-PHOTO. SPRAGUE & Co 4 & 5, EAST HARDING STREET, FETTER LANE, E.C.




DESIGN FOR HEADING TO PROGRAMM

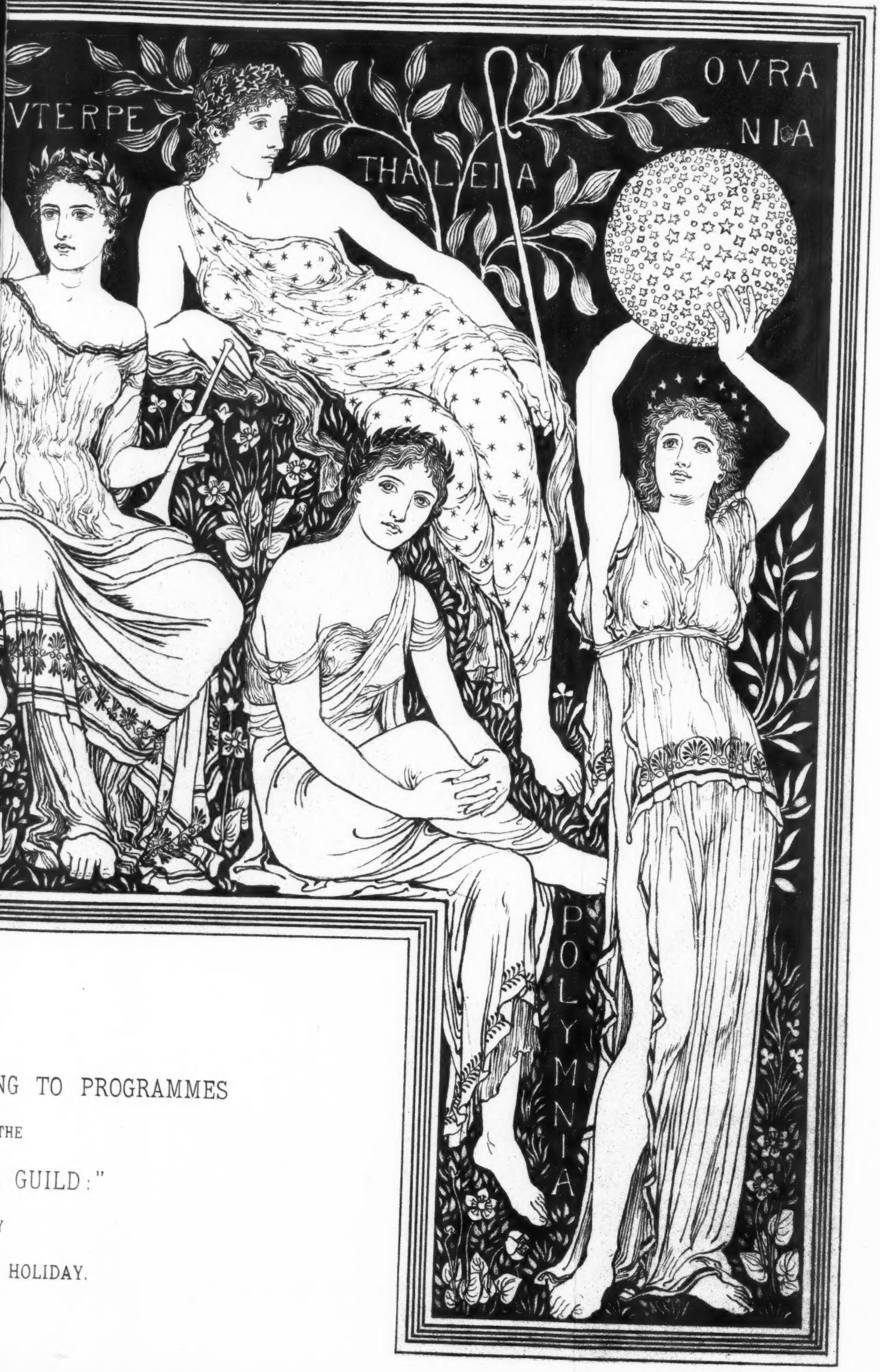
OF THE

"MUSICAL GUILD:"

BY

MR. HENRY HOLIDAY.

INK-PHOTO. SPRAGUE & Co 4 & 5, EAST HARDING STREET, FETTER LANE, E.C.




DING TO PROGRAMMES

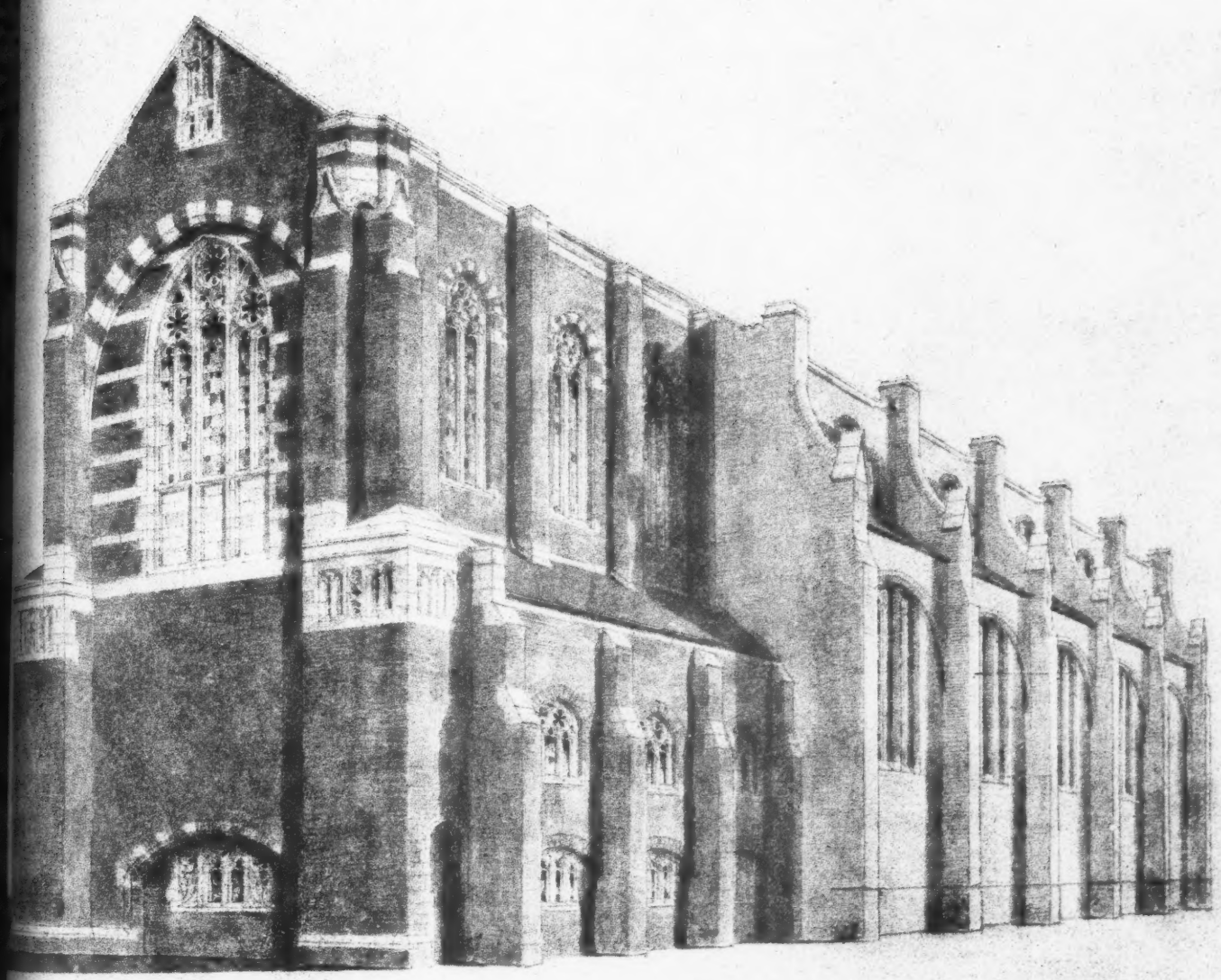
OF THE

AL GUILD:"

BY

RY HOLIDAY.

# NEW CHURCH OF ST ETHELDREDA: FULHAM:



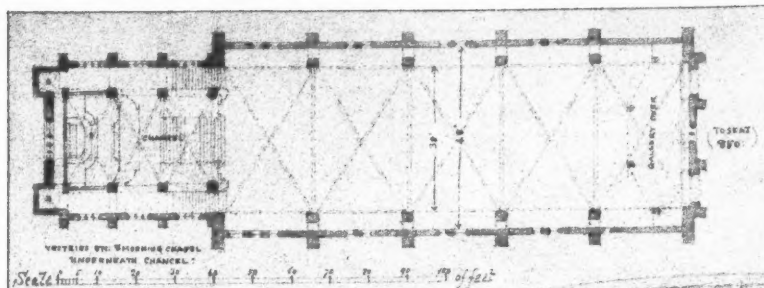
View from north east:

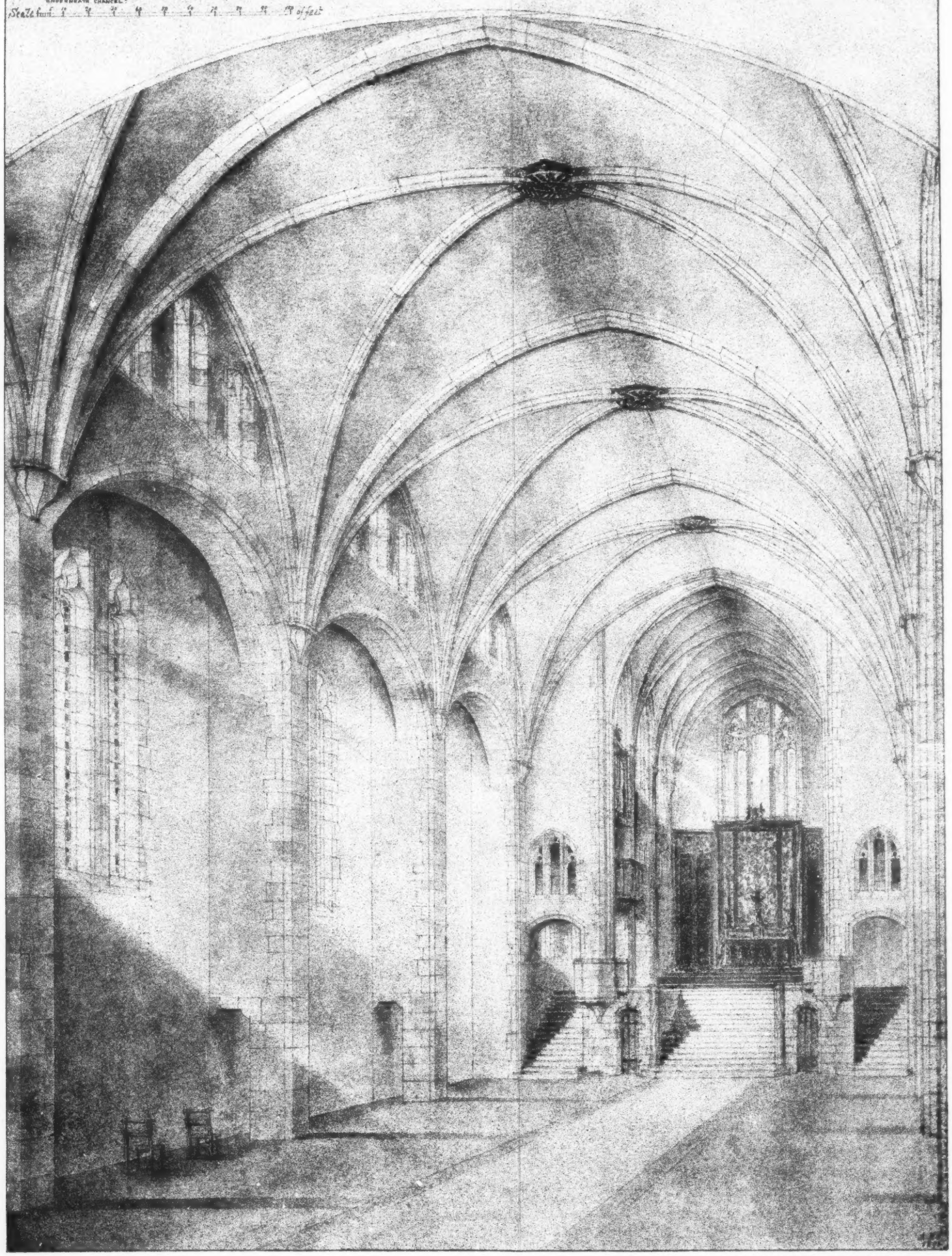
A.W. Skipworth Architect.
5 Staple Inn London.

INK-PHOTO. SPRAGUE & Co 4 & 5, EAST HARDING STREET, FETTER LANE, E.C.

# NEW CHURCH OF ST: ETHELDREDA FULHAM : S.W:

A. H. Skipworth. Architect.
5 Staple Inn. London.





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